



# STIC Search Report

## Biotech-Chem Library

STIC Database Tracking Number: 114071

TO: Rebecca Cook  
Location: REM-4A65  
Art Unit: 1614  
Thursday, February 12, 2004  
Case Serial Number: 09/997490

4070

From: Paul Schulwitz  
Location: Biotech-Chem Library  
REM-1A65  
Phone: (571)272-2527

[paul.schulwitz@uspto.gov](mailto:paul.schulwitz@uspto.gov)

### Search Notes

Examiner Cook,

See attached results.

If you have any questions about this search feel free to contact me at any time.

Thank you for using STIC search services!

Paul Schulwitz  
Technical Information Specialist  
STIC Biotech/Chem Library  
(571)272-2527



Paul Schulwitz 114611

Access DB#

# SEARCH REQUEST FORM

RECEIVED

Scientific and Technical Information Center

FEB 11 2004

Requester's Full Name: Rebecca Losh CHEM AND BIO 64826 Date: 2/4/04  
An Unit: 1614 Phone Number: 303 712 2205 Serial Number: 091957490  
Mail Box and Bldg/Room Location: 24A65 Results Format Preferred (circle): PAPER DISK E-MAIL

4070  
If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*  
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): George Kindness et

Earliest Priority Filing Date: 10/6/01

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please provide structures of celecoxib, atorvastatin, cytochrome c and search each of them separately to treat cancer. Search caplus, medline & other database as appropriate. Also search using COX-2 inhibitors & 14m6 - CEA reductase inhibitors separately & together to treat cancer.

structures of Vitamin C, vitamin E & search their use to treat cancer, as well as their supplements during times of stress.  
RECEIVED FEB 11 2004  
THANKS  
REBECCA

## STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: _____	NA Sequence (#) _____	STN <u>936.55</u>
Searcher Phone # _____	AA Sequence (#) _____	Dialog _____
Searcher Location _____	Structure (#) _____	Questel Orbit _____
Date Searcher Provided _____	Bibliographic <input checked="" type="checkbox"/>	Dr. Info _____
Date Completed <u>2/12</u>	Litigation _____	Lexis Nexis _____
Searcher Prep & Review Time <u>30</u>	Fulltext <input checked="" type="checkbox"/>	Sequence Systems _____
Client Prep Time _____	Patent Family _____	WWW Internet _____
Filing Time <u>72</u>	Other _____	Other (specify) _____

FILE **HCAPLUS** ENTERED AT 11:39:13 ON 12 FEB 2004  
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FILE COVERS 1907 - 12 Feb 2004 VOL 140 ISS 7  
FILE LAST UPDATED: 11 Feb 2004 (20040211/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d que 123

L1	1	SEA FILE=REGISTRY ABB=ON	PLU=ON	VITAMIN C/CN
L4	6979	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L1 (L) (BAC OR DMA OR PAC OR PKT OR THU)/RL
L17	169466	SEA FILE=HCAPLUS ABB=ON	PLU=ON	ANTITUMOR AGENTS+OLD/CT
L18	500	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L4 AND L17
L19	950	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L1 (L) (?CANCER? OR ?TUMOR? OR ?NEOPLAS?)
L20	207	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L18 AND L19
L21	18	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L20 AND REVIEW/DT
L22	27	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L18 AND REVIEW/DT
L23	27	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L21 OR L22

*Vit. C vs.  
Cancer*

=> d que 129

L2	1	SEA FILE=REGISTRY ABB=ON	PLU=ON	VITAMIN E/CN
L7	4547	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L2 (L) (BAC OR DMA OR PAC OR PKT OR THU)/RL
L17	169466	SEA FILE=HCAPLUS ABB=ON	PLU=ON	ANTITUMOR AGENTS+OLD/CT
L24	458	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L2 (L) (?CANCER? OR ?TUMOR? OR ?NEOPLAS?)
L27	281	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L7 AND L17
L28	117	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L27 AND L24
L29	226	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L28 AND REVIEW/DT

*Vit E vs.  
Cancer*

=> d que 140

L1	1	SEA FILE=REGISTRY ABB=ON	PLU=ON	VITAMIN C/CN
L2	1	SEA FILE=REGISTRY ABB=ON	PLU=ON	VITAMIN E/CN
L4	6979	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L1 (L) (BAC OR DMA OR PAC OR PKT OR THU)/RL
L7	4547	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L2 (L) (BAC OR DMA OR PAC OR PKT OR THU)/RL

```

L17      169466 SEA FILE=HCAPLUS ABB=ON PLU=ON ANTITUMOR AGENTS+OLD/CT
L18      500 SEA FILE=HCAPLUS ABB=ON PLU=ON L4 AND L17
L19      950 SEA FILE=HCAPLUS ABB=ON PLU=ON L1(L) (?CANCER? OR ?TUMOR? OR
        ?NEOPLAS?)
L20      207 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 AND L19
L24      458 SEA FILE=HCAPLUS ABB=ON PLU=ON L2(L) (?CANCER? OR ?TUMOR? OR
        ?NEOPLAS?)
L27      281 SEA FILE=HCAPLUS ABB=ON PLU=ON L7 AND L17
L28      117 SEA FILE=HCAPLUS ABB=ON PLU=ON L27 AND L24
L40      32 SEA FILE=HCAPLUS ABB=ON PLU=ON L28 AND L20

```

*Vit C+E vs. Cancer*

=&gt; s 123 or 129 or 140

L49 75 L23 OR L29 OR L40

=&gt; b medline

FILE 'MEDLINE' ENTERED AT 11:39:53 ON 12 FEB 2004

FILE LAST UPDATED: 11 FEB 2004 (20040211/UP). FILE COVERS 1958 TO DATE.

On December 14, 2003, the 2004 MeSH terms were loaded. See HELP RLOAD for details.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2004 vocabulary. See <http://www.nlm.nih.gov/mesh/> and [http://www.nih.gov/pubs/yechbull/nd03/nd03\\_mesh.html](http://www.nih.gov/pubs/yechbull/nd03/nd03_mesh.html) for a description on changes.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=&gt; d que 134

```

L30      21771 SEA FILE=MEDLINE ABB=ON PLU=ON ASCORBIC ACID+PFT/CT
L31      82060 SEA FILE=MEDLINE ABB=ON PLU=ON ANTINEOPLASTIC AGENTS/CT
L32      186 SEA FILE=MEDLINE ABB=ON PLU=ON L30 AND L31
L33      90 SEA FILE=MEDLINE ABB=ON PLU=ON L32 AND (TU OR DT)
L34      14 SEA FILE=MEDLINE ABB=ON PLU=ON L33 AND REVIEW/DT

```

*Vit. C vs. Cancer*

=&gt; d que 138

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L31      82060 SEA FILE=MEDLINE ABB=ON PLU=ON ANTINEOPLASTIC AGENTS/CT
L35      17019 SEA FILE=MEDLINE ABB=ON PLU=ON "VITAMIN E"+PFT/CT
L36      141 SEA FILE=MEDLINE ABB=ON PLU=ON L35 AND L31
L37      70 SEA FILE=MEDLINE ABB=ON PLU=ON L36 AND (TU OR DT)
L38      22 SEA FILE=MEDLINE ABB=ON PLU=ON L37 AND REVIEW/DT

```

*Vit. E vs. Cancer*

=&gt; d que 139

```

L30      21771 SEA FILE=MEDLINE ABB=ON PLU=ON ASCORBIC ACID+PFT/CT
L31      82060 SEA FILE=MEDLINE ABB=ON PLU=ON ANTINEOPLASTIC AGENTS/CT
L32      186 SEA FILE=MEDLINE ABB=ON PLU=ON L30 AND L31
L33      90 SEA FILE=MEDLINE ABB=ON PLU=ON L32 AND (TU OR DT)
L35      17019 SEA FILE=MEDLINE ABB=ON PLU=ON "VITAMIN E"+PFT/CT
L36      141 SEA FILE=MEDLINE ABB=ON PLU=ON L35 AND L31
L37      70 SEA FILE=MEDLINE ABB=ON PLU=ON L36 AND (TU OR DT)
L39      8 SEA FILE=MEDLINE ABB=ON PLU=ON L33 AND L37

```

*Vit C+E vs. Cancer*

=> s 134 or 138 or 139  
L50 40 L34 OR L38 OR L39

=> b hcaplus  
FILE 'HCAPLUS' ENTERED AT 11:40:28 ON 12 FEB 2004  
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FILE COVERS 1907 - 12 Feb 2004 VOL 140 ISS 7  
FILE LAST UPDATED: 11 Feb 2004 (20040211/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d que 111

L1	1	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	VITAMIN C/CN
L3	33590	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	STRESS, ANIMAL+PFT,NT/CT
L4	6979	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L1(L) (BAC OR DMA OR PAC OR PKT OR THU)/RL
L6	1086	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L1(L) (?STRESS? OR ?ANXIET?)
<del>L11</del>	<del>48</del>	<del>SEA</del>	<del>FILE=HCAPLUS</del>	<del>ABB=ON</del>	<del>PLU=ON</del>	<del>L4 AND L6 AND L3</del>

*Vit C vs. Stress*

=> d que 112

L2	1	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	VITAMIN E/CN
L3	33590	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	STRESS, ANIMAL+PFT,NT/CT
L7	4547	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L2(L) (BAC OR DMA OR PAC OR PKT OR THU)/RL
L9	553	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L2(L) (?STRESS? OR ?ANXIET?)
<del>L12</del>	<del>33</del>	<del>SEA</del>	<del>FILE=HCAPLUS</del>	<del>ABB=ON</del>	<del>PLU=ON</del>	<del>L3 AND L7 AND L9</del>

*Vit E. vs Stress*

=> d que 113

L1	1	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	VITAMIN C/CN
L2	1	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	VITAMIN E/CN
L3	33590	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	STRESS, ANIMAL+PFT,NT/CT
L4	6979	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L1(L) (BAC OR DMA OR PAC OR PKT OR THU)/RL
L6	1086	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L1(L) (?STRESS? OR ?ANXIET?)
L7	4547	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L2(L) (BAC OR DMA OR PAC OR PKT OR THU)/RL
L9	553	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L2(L) (?STRESS? OR ?ANXIET?)
L11	48	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L4 AND L6 AND L3

L12 33 SEA FILE=HCAPLUS ABB=ON PLU=ON L3 AND L7 AND L9  
L13 10 SEA FILE=HCAPLUS ABB=ON PLU=ON L11 AND L12

*Vit. C+E vs. Stress*

=> s l11 or l12 or l13

L51 71 L11 OR L12 OR L13

=> b medline

FILE 'MEDLINE' ENTERED AT 11:41:03 ON 12 FEB 2004

FILE LAST UPDATED: 11 FEB 2004 (20040211/UP).. FILE COVERS 1958 TO DATE.

On December 14, 2003, the 2004 MeSH terms were loaded. See HELP RLOAD for details.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2004 vocabulary. See <http://www.nlm.nih.gov/mesh/> and [http://www.nih.gov/pubs/yechnbull/nd03/nd03\\_mesh.html](http://www.nih.gov/pubs/yechnbull/nd03/nd03_mesh.html) for a description on changes.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d que 145

L30 21771 SEA FILE=MEDLINE ABB=ON PLU=ON ASCORBIC ACID+PFT/CT  
L41 29339 SEA FILE=MEDLINE ABB=ON PLU=ON STRESS+PFT/CT  
L42 193 SEA FILE=MEDLINE ABB=ON PLU=ON L30 AND L41  
L45 29 SEA FILE=MEDLINE ABB=ON PLU=ON L42 AND (DT OR TU)

*Vit. C vs. Stress*

=> d que 147

L35 17019 SEA FILE=MEDLINE ABB=ON PLU=ON "VITAMIN E"+PFT/CT  
L41 29339 SEA FILE=MEDLINE ABB=ON PLU=ON STRESS+PFT/CT  
L46 93 SEA FILE=MEDLINE ABB=ON PLU=ON L35 AND L41  
L47 22 SEA FILE=MEDLINE ABB=ON PLU=ON L46 AND (DT OR TU)

*Vit E vs. Stress*

=> d que 148

L30 21771 SEA FILE=MEDLINE ABB=ON PLU=ON ASCORBIC ACID+PFT/CT  
L35 17019 SEA FILE=MEDLINE ABB=ON PLU=ON "VITAMIN E"+PFT/CT  
L41 29339 SEA FILE=MEDLINE ABB=ON PLU=ON STRESS+PFT/CT  
L42 193 SEA FILE=MEDLINE ABB=ON PLU=ON L30 AND L41  
L45 29 SEA FILE=MEDLINE ABB=ON PLU=ON L42 AND (DT OR TU)  
L46 93 SEA FILE=MEDLINE ABB=ON PLU=ON L35 AND L41  
L47 22 SEA FILE=MEDLINE ABB=ON PLU=ON L46 AND (DT OR TU)  
L48 3 SEA FILE=MEDLINE ABB=ON PLU=ON L45 AND L47

*Vit. C+E vs Stress*

=> s 145 or 147 or 148

L52 48 L45 OR L47 OR L48

=> b stng

FILE 'STNGUIDE' ENTERED AT 11:41:37 ON 12 FEB 2004

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LAST RELOADED: Feb 6, 2004 (20040206/UP).

~~> dup rem 152 150 149 151~~

FILE 'MEDLINE' ENTERED AT 11:42:02 ON 12 FEB 2004

FILE 'HCAPLUS' ENTERED AT 11:42:02 ON 12 FEB 2004  
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PROCESSING COMPLETED FOR L52  
PROCESSING COMPLETED FOR L50  
PROCESSING COMPLETED FOR L49  
PROCESSING COMPLETED FOR L51

L53 231 DUP REM L52 L50 L49 L51 (3 DUPLICATES REMOVED)  
ANSWERS '1-88' FROM FILE MEDLINE  
ANSWERS '89-231' FROM FILE HCAPLUS

~~> d 153 bib ab 1-231~~

L53 ANSWER 1 OF 231 MEDLINE on STN DUPLICATE 1  
AN 2001480361 MEDLINE  
DN 21414439 PubMed ID: 11523588  
TI Vitamin E analogues as inducers of apoptosis: implications for their potential antineoplastic role.  
AU Neuzil J; Weber T; Terman A; Weber C; Brunk U T  
CS Institute for Prevention of Cardiovascular Diseases, Ludwig Maximilians University, Munich, Germany.. jneuzil@klp.med.uni-muenchen.de  
SO REDOX REPORT, (2001) 6 (3) 143-51. Ref: 77  
Journal code: 9511366. ISSN: 1351-0002.  
CY England: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**  
(REVIEW, TUTORIAL)  
LA English  
FS Priority Journals  
EM 200202  
ED Entered STN: 20010830  
Last Updated on STN: 20020222  
Entered Medline: 20020221  
AB Recent evidence suggests that vitamin E and its analogues, which have been used for many years as antioxidants, may not only protect cells from free radical damage but also induce apoptotic cell death in various cell types. While alpha-tocopherol (alpha-TOH) is mainly known as an anti-apoptotic agent, its redox-silent analogues either have no influence on cell survival (alpha-tocopheryl acetate, alpha-TOA), or induce apoptosis (alpha-tocopheryl succinate, alpha-TOS). Although precise mechanisms of apoptosis induction by alpha-TOS remain to be elucidated, there is evidence that this process involves both the antiproliferative and membrane destabilising activities of the agent. Alpha-TOS has been shown to induce apoptosis in malignant cell lines but not, in general, in normal cells, and to inhibit tumorigenesis in vivo. These features suggest that this semi-synthetic analogue of vitamin E could be a promising antineoplastic agent.

L53 ANSWER 2 OF 231 MEDLINE on STN DUPLICATE 2  
AN 2001496077 MEDLINE

DN 21428388 PubMed ID: 11544808  
TI [Immunomodulating and antioxidant effects of vitamins A and E during air and immersion cooling].  
Immunomoduliruiushchee i antioksidantnoe deistvie vitaminov A i E pri vozdushnom i immersionnom okhlazhdenii.  
AU Uteshev B S; Bystrova N A; Brovkina I L; Avakian A R  
CS Pharmacology Department, State Medical University, ul. Ostrovityanova 1, Moscow, 117437 Russia.  
SO EKSPERIMENTALNAIA I KLINICHESKAIA FARMAKOLOGIIA, (2001 Jan-Feb) 64 (1) 60-2.  
Journal code: 9215981. ISSN: 0869-2092.  
CY Russia: Russian Federation  
DT Journal; Article; (JOURNAL ARTICLE)  
LA Russian  
FS Priority Journals  
EM 200110  
ED Entered STN: 20010910  
Last Updated on STN: 20011008  
Entered Medline: 20011004  
AB An important factor in the immunosuppression development on cooling is the increase in lipid peroxidation rate in the cell membranes. It was found that vitamins A and E possess a high immunomodulating and antioxidant activity under the acute cold-induced stress conditions. Administration of these vitamins is expedient for patients suffered from cooling in air of by immersion.

L53 ANSWER 3 OF 231 MEDLINE on STN  
AN 2003533307 MEDLINE  
DN PubMed ID: 14612885  
TI Vitamin E succinate and cancer treatment: a vitamin E prototype for selective antitumour activity.  
AU Neuzil J  
CS School of Health Sciences, Griffith University, Southport 9726, Queensland, Australia.. j.nuezil@griffith.edu.au  
SO British journal of cancer, (2003 Nov 17) 89 (10) 1822-6. Ref: 50  
Journal code: 0370635. ISSN: 0007-0920.  
CY England: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**  
(REVIEW, TUTORIAL)  
LA English  
FS Priority Journals  
EM 200401  
ED Entered STN: 20031113  
Last Updated on STN: 20040108  
Entered Medline: 20040107  
AB Great hope has been given to micronutrients as anticancer agents, since they present natural compounds with beneficial effects for normal cells and tissues. One of these is vitamin E (VE), an antioxidant and an essential component of biological membranes and circulating lipoproteins. In spite of a number of epidemiological and intervention studies, little or no correlation between VE intake and incidence of cancer has been found. Recent reports have identified a redox-silent analogue of VE, alpha-tocopheryl succinate (alpha-TOS), as a potent anticancer agent with a unique structure and pharmacokinetics in vivo. alpha-TOS is highly selective for malignant cells, inducing them into apoptotic death largely via the mitochondrial route. The molecule of alpha-TOS may be modified so



that analogues with higher activity are generated. Finally, alpha-TOS and similar agents are metabolised to VE, thereby yielding a compound with a secondary beneficial activity. Thus, alpha-TOS epitomises a group of novel compounds that hold substantial promise as future anticancer drugs. The reasons for this optimistic notion are discussed in the following paragraphs.

L53 ANSWER 4 OF 231 MEDLINE on STN  
AN 2003445581 MEDLINE  
DN PubMed ID: 14505710  
TI Ascorbic acid supplementation of diet for reduction of deltamethrin induced stress in freshwater catfish *Clarias gariepinus*.  
AU Datta Madhuban; Kaviraj Anilava  
CS Department of Zoology, University of Kalyani, Kalyani-741235, West Bengal, India.  
SO Chemosphere, (2003 Dec) 53 (8) 883-8.  
Journal code: 0320657. ISSN: 0045-6535.  
CY England: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 200311  
ED Entered STN: 20030925  
Last Updated on STN: 20031218  
Entered Medline: 20031128  
AB Static bioassays were made to evaluate efficiency of supplementation of ascorbic acid to remove stress of pyrethroid pesticide deltamethrin from freshwater catfish *Clarias gariepinus*. *Clarias gariepinus* exhibited several symptoms of stress when treated with deltamethrin (0.005 mg/l) for 24 h. Hepatosomatic index, liver glycogen, ascorbic acid of blood, liver, and kidney decreased while plasma glucose levels increased. Fish previously fed for 60 days with a diet supplemented by a high level of ascorbic acid (100 mg/100 g) could remove most of the stresses. Low levels of ascorbic acid supplement did not remove the stress. Dietary supplement of ascorbic acid at also appropriate level appeared to be a good way to counter toxicity of deltamethrin to the catfish.

L53 ANSWER 5 OF 231 MEDLINE on STN  
AN 2003157214 MEDLINE  
DN 22560577 PubMed ID: 12672706  
TI Alpha-tocopheryl succinate, the most effective form of vitamin E for adjuvant cancer treatment: a review.  
AU Prasad Kedar N; Kumar Bipin; Yan Xiang-Dong; Hanson Amy J; Cole William C  
CS Center for Vitamins and Cancer Research, Department of Radiology, Campus Box C-278, University of Colorado Health Sciences Center, 4200 East 9th Avenue, Denver, CO 80262, USA.. kedar.prasad@UCHSC.edu  
SO JOURNAL OF THE AMERICAN COLLEGE OF NUTRITION, (2003 Apr) 22 (2) 108-17.  
Ref: 80  
Journal code: 8215879. ISSN: 0731-5724.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**  
(REVIEW, TUTORIAL)  
LA English  
FS Priority Journals  
EM 200310  
ED Entered STN: 20030404

Last Updated on STN: 20031015

Entered Medline: 20031014

AB In 1982, it was established that alpha-tocopheryl succinate (alpha-TS) was the most effective form of vitamin E in comparison to alpha-tocopherol, alpha-tocopheryl acetate and alpha-tocopheryl nicotinate in inducing differentiation, inhibition of proliferation and apoptosis in cancer cells, depending upon its concentration. During the last two decades, several studies have confirmed this observation in rodent and human cancer cells in culture and in vivo (animal model). The most exciting aspect of this alpha-TS effect is that it does not affect the proliferation of most normal cells. In spite of several studies published on the anti-cancer properties of alpha-TS, the value of this form of vitamin E has not drawn significant attention from researchers and clinicians. Therefore, a critical review on the potential role of alpha-TS in the management of cancer is needed. In addition, such a review can also provide in-depth analysis of existing literature on this subject. alpha-TS treatment causes extensive alterations in gene expression; however, only some can be attributed to differentiation, inhibition of proliferation and apoptosis. alpha-TS also enhances the growth-inhibitory effect of ionizing radiation, hyperthermia, some chemotherapeutic agents and biological response modifiers on tumor cells, while protecting normal cells against some of their adverse effects. Thus, alpha-TS alone or in combination with dietary micronutrients can be useful as an adjunct to standard cancer therapy by increasing tumor response and possibly decreasing some of the toxicities to normal cells.

L53 ANSWER 6 OF 231 MEDLINE on STN  
AN 2003253405 MEDLINE  
DN 22661426 PubMed ID: 12776480  
TI Vitamin C as a cancer treatment: state of the science and recommendations for research.  
AU Tamayo Carmen; Richardson Mary Ann  
NC 5 U24 CA66826-03 (NCI)  
SO ALTERNATIVE THERAPIES IN HEALTH AND MEDICINE, (2003 May-Jun) 9 (3) 94-101.  
Ref: 180  
Journal code: 9502013. ISSN: 1078-6791.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**  
(REVIEW, TUTORIAL)  
LA English  
FS Priority Journals  
EM 200307  
ED Entered STN: 20030603  
Last Updated on STN: 20030718  
Entered Medline: 20030717

L53 ANSWER 7 OF 231 MEDLINE on STN  
AN 2003085654 MEDLINE  
DN 22485076 PubMed ID: 12597353  
TI Chemoprevention of lung cancer: soon daily practice?.  
AU van Zandwijk Nico; Pastorino Ugo  
CS Head Dept. Thoracic Oncology, Netherlands Cancer Institute, Amsterdam..  
n.v.zandwijk@nki.nl  
SO Expert Rev Anticancer Ther, (2003 Feb) 3 (1) 91-8. Ref: 80  
Journal code: 101123358. ISSN: 1473-7140.  
CY England: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)

LA English  
FS Priority Journals  
EM 200304  
ED Entered STN: 20030225  
Last Updated on STN: 20030429  
Entered Medline: 20030428

AB The statistics on lung cancer survival remain disappointing and form a powerful argument to develop new methods to control this most deadly form of cancer in both men and women. Chemoprevention is one of these new approaches. While carcinogens from cigarette smoke form an essential link between nicotine addiction and lung cancer, several investigations confirm that dietary and genetically determined factors play an important role in modulating the individual susceptibility and are linked to the chemoprevention approach. In spite of a large abundance of positive preclinical observations, most experiences with potential chemopreventive agents, such as retinoids and antioxidants in individuals at risk for lung cancer have been so far negative. Moreover, beta-carotene was associated with an increased lung cancer incidence in two large randomized studies, as a consequence of a negative interaction with smoking. On the other hand, recent progress in molecular biology has led to the discovery of specific approaches to chemoprevention and there considerable optimism regarding the potential of molecules and antibodies that target specific receptors or mutations. Epidermal growth factor receptor blocking agents, farnesyltransferase and cyclooxygenase inhibitors and 9-cis retinoic acid have been identified as promising candidates for studies in high risk populations. After more than 20 years of worldwide research, the prospects for effective lung cancer treatment are better than ever.

L53 ANSWER 8 OF 231 MEDLINE on STN  
AN 2002710978 MEDLINE  
DN 22360943 PubMed ID: 12473572  
TI Targeting the mitochondria: an exciting new approach to myeloma therapy. Commentary re: N. J. Bahlis et al., Feasibility and correlates of arsenic trioxide combined with ascorbic acid-mediated depletion of intracellular glutathione for the treatment of relapsed/refractory multiple myeloma. Clin. Cancer Res., 8: 3658-3668, 2002.  
CM Comment in: Clin Cancer Res. 2002 Dec;8(12):3658-68  
AU Dalton William S  
CS H. Lee Moffitt Cancer Center and Research Institute, Tampa, Florida 33612, USA.  
SO CLINICAL CANCER RESEARCH, (2002 Dec) 8 (12) 3643-5. Ref: 16  
Journal code: 9502500. ISSN: 1078-0432.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)

LA English  
FS Priority Journals  
EM 200301  
ED Entered STN: 20021217  
Last Updated on STN: 20030122  
Entered Medline: 20030121

L53 ANSWER 9 OF 231 MEDLINE on STN

AN 2002651011 MEDLINE  
DN 22237240 PubMed ID: 12324201  
TI Antioxidant nutrients and adriamycin toxicity.  
AU Quiles Jose L; Huertas Jesus R; Battino Maurizio; Mataix Jose;  
Ramirez-Tortosa M Carmen  
CS Department of Physiology, Institute of Nutrition and Food Technology,  
University of Granada, Ramon y Cajal 4, Spain.. jlquiles@ugr.es  
SO TOXICOLOGY, (2002 Oct 30) 180 (1) 79-95. Ref: 143  
Journal code: 0361055. ISSN: 0300-483X.  
CY Ireland  
DT Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**  
(REVIEW, TUTORIAL)  
LA English  
FS Priority Journals  
EM 200211  
ED Entered STN: 20021105  
Last Updated on STN: 20021211  
Entered Medline: 20021114  
AB The anthracycline antibiotic adriamycin (doxorubicin) is one of the most effective chemotherapeutic agents against a wide variety of cancers. However, its use is seriously limited by the development in the heart of acute and chronic toxic effects. Mechanisms of action and toxicity of adriamycin are briefly revised in this review. Among followed strategies to attenuate adriamycin toxicity are dosage optimisation, synthesis and use of analogues or combined therapy with antioxidants. The most promising results come from the combination of the drug delivery together with an antioxidant in order to reduce oxidative stress. Many antioxidants have been assayed with very different results. Among these molecules, metal ions chelators and low-molecular-mass agents that scavenge reactive oxygen species and that are synthesised in vivo have been widely studied. However, the present review will be exclusively focused on the antioxidants that are derived from the diet, in particular the role of vitamin E, vitamin C, vitamin A, coenzyme Q, flavonoids, antioxidant components of virgin olive oil and selenium.

L53 ANSWER 10 OF 231 MEDLINE on STN  
AN 2002214509 MEDLINE  
DN 21947985 PubMed ID: 11951081  
TI A radical approach to cancer.  
AU Das Undurti  
CS EFA Sciences LLC, Norwood, MA 02062, USA.. undurti@hotmail.com  
SO MEDICAL SCIENCE MONITOR, (2002 Apr) 8 (4) RA79-92. Ref: 173  
Journal code: 9609063. ISSN: 1234-1010.  
CY Poland  
DT Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**  
(REVIEW, ACADEMIC)  
LA English  
FS Priority Journals  
EM 200209  
ED Entered STN: 20020413  
Last Updated on STN: 20020927  
Entered Medline: 20020926  
AB Reactive oxygen species are known to be potentially dangerous, but are also needed for signal-transduction pathways. Tumor cells have relatively low amounts of superoxide dismutase (SOD), which quenches superoxide anion

(O<sub>2</sub>(-\*) ), and as a result of a higher level of aerobic metabolism, higher concentrations of O<sub>2</sub>(-\*) , compared to normal cells. But this may not be true of all tumor cells. Some tumor cells have relatively higher amounts of vitamin E, a potent anti-oxidant, and a higher level of anaerobic metabolism, resulting in a balance that is tilted more towards higher anti-oxidant capacity. In both instances of higher aerobic and anaerobic metabolism methods designed to augment free radical generation in tumor cells can cause their death. It is suggested that free radicals and lipid peroxides suppress the expression of Bcl-2, activate caspases and shorten telomere, and thus inducing apoptosis of tumor cells. Ionizing radiation, anthracyclines, bleomycin and cytokines produce free radicals and thus are useful as anti-cancer agents. But they also produce many side-effects. 2-methoxyoestradiol and polyunsaturated fatty acids (PUFAs) inhibit SODs and cause an increase of O<sub>2</sub>(-\*) in tumor cells leading to their death. In addition, PUFAs (especially gamma-linolenic acid), 2-methoxyoestradiol and thalidomide may possess anti-angiogenic activity. This suggests that free radicals can suppress angiogenesis. Limited clinical studies done with gamma-linolenic acid showed that it can regress human brain gliomas without any significant side-effects. Thus, PUFAs, thalidomide and 2-methoxyoestradiol or their derivatives may offer a new radical approach to the treatment of cancer.

L53 ANSWER 11 OF 231 MEDLINE on STN  
 AN 2001542162 MEDLINE  
 DN 21473586 PubMed ID: 11589062  
 TI Prostate cancer in the older man.  
 AU Ko Y J; Bubley G J  
 CS Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, Massachusetts, USA.  
 SO ONCOLOGY, (2001 Sep) 15 (9) 1113-9, 1123-4; discussion 1124-6, 1131. Ref: 58  
 Journal code: 8712059. ISSN: 0890-9091.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 200201  
 ED Entered STN: 20011009  
 Last Updated on STN: 20020125  
 Entered Medline: 20020107  
 AB Most men diagnosed with prostate cancer are more than 65 years of age. Therefore, a discussion of the issues surrounding the diagnosis, prevention, and treatment of prostate cancer in older men is, in many ways, a review of prostate cancer in general. Nonetheless, older patients with prostate cancer are often faced with a different set of problems than younger patients. For instance, if preventive strategies prove useful, they will have important implications for older men. Even a significant delay in diagnosis could greatly benefit the elderly population. Prostate-specific antigen (PSA) screening is controversial for men of any age but, for older men, screening may impart a risk to quality of life that may outweigh the potential advantages of diagnosis and treatment. Results of a large follow-up study of patients treated with radical prostatectomy suggest that even men with rising PSA values after surgery can have a relatively benign and protracted course. The survival rates noted in this study, however, were only for a select population of

surgical patients, and, in fact, higher prostate cancer death rates have been observed for patients adopting the watchful waiting approach. Older men who request some form of primary therapy are increasingly being treated with brachytherapy, despite the lack of randomized trials demonstrating efficacy compared to external-beam radiation therapy, surgery, or watchful waiting. Contrary to an often-held view, older prostate cancer patients may have more morbidity from long-term testosterone suppression than younger patients. On the other hand, chemotherapy seems to be as well tolerated overall in older patients as in younger patients.

L53 ANSWER 12 OF 231 MEDLINE on STN  
 AN 2001493654 MEDLINE  
 DN 21427607 PubMed ID: 11536389  
 TI Neuroprotective effects of Withania somnifera Dunn. in hippocampal sub-regions of female albino rat.  
 AU Jain S; Shukla S D; Sharma K; Bhatnagar M  
 CS Department of Zoology, University College of Science, M.L. Sukhadia University, Udaipur 313001, India.  
 SO PHYTOTHERAPY RESEARCH, (2001 Sep) 15 (6) 544-8.  
 Journal code: 8904486. ISSN: 0951-418X.  
 CY England: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 200201  
 ED Entered STN: 20010906  
 Last Updated on STN: 20020125  
 Entered Medline: 20020107  
 AB The neuroprotective effects of W. somnifera were studied on stressed adult female Swiss albino rats. Experimental rats were subjected to immobilization stress for 14 h and were treated with a root powder extract of W. somnifera available as Stresscom capsules (Dabur India Ltd). Control rats were maintained in completely, non stressed conditions. Thionin stained serial coronal sections (7 microm) of brain passing through the hippocampal region of stressed rats (E(1) group) demonstrated 85% degenerating cells (dark cells and pyknotic cells) in the CA(2) and CA(3) sub-areas. Treatment with W. somnifera root powder extract significantly reduced (80%) the number of degenerating cells in both the areas. The study thus demonstrates the antistress neuroprotective effects of W. somnifera.  
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L53 ANSWER 13 OF 231 MEDLINE on STN  
 AN 2001213967 MEDLINE  
 DN 21115180 PubMed ID: 11220660  
 TI The role of molecular genetics in chemoprevention studies of prostate cancer.  
 AU Ross R K  
 SO IARC SCIENTIFIC PUBLICATIONS, (2001) 154 207-13. Ref: 39  
 Journal code: 8009542. ISSN: 0300-5038.  
 CY France  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals

EM 200104  
ED Entered STN: 20010425  
Last Updated on STN: 20010425  
Entered Medline: 20010419

AB Research into the molecular genetics of prostate cancer to date has largely focused on the possible existence of one or several single-locus high-penetrance susceptibility genes and several candidate regions have been Identified, but confirmatory studies of these regions have been inconclusive. Increasingly, attention has turned to identification of candidate genes which may increase prostate cancer risk because their products play an important role in possible etiological pathways for prostate cancer. Of various such pathways which have been suggested for prostate cancer, the best studied in terms of molecular genetics is the androgen signalling pathway. Two genes in this pathway, the androgen receptor (AR) gene and the steroid 5-alpha reductase type II (SRD5A2) gene, have been under particular scrutiny and polymorphic markers in each of these genes that reproducibly predict prostate cancer risk have been identified. Such studies may have important implications for prostate cancer chemoprevention trials. As etiological pathways become better understood at the molecular level, piecing together multiple genetic variants in a pathway will allow identification of high-risk individuals and potential targets for chemopreventive interventions. Moreover, understanding the role of these genes in prostate cancer etiology may help in defining heterogeneity in response to such interventions. Finally, these genes or their products may themselves be legitimate targets for building a chemoprevention strategy.

L53 ANSWER 14 OF 231 MEDLINE on STN  
AN 2001269363 MEDLINE  
DN 21127450 PubMed ID: 11224693  
TI Treatment of focal segmental glomerulosclerosis.  
AU Passerini P; Ponticelli C  
CS Division of Nephrology and Dialysis, IRCCS, Maggiore Hospital, Milan, Italy.. ponticel@polic.cilea.it  
SO CURRENT OPINION IN NEPHROLOGY AND HYPERTENSION, (2001 Mar) 10 (2) 189-93.  
Ref: 55  
Journal code: 9303753. ISSN: 1062-4821.  
CY England: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**  
(REVIEW, TUTORIAL)

LA English  
FS Priority Journals  
EM 200105  
ED Entered STN: 20010529  
Last Updated on STN: 20010529  
Entered Medline: 20010521

AB The prognosis of untreated patients with focal segmental glomerulosclerosis is poor, as the disease progress to end-stage renal disease in approximately 50--70% of nephrotic patients. Although focal segmental glomerulosclerosis was initially considered to be a steroid-resistant disease, several studies have shown a better responsiveness to more prolonged courses of steroids. For patients with steroid-resistant or -dependent focal segmental glomerulosclerosis, cyclosporine A and cytotoxic agents have shown efficacy in clinical trials. Plasmapheresis or LDL-apheresis may represent a rescue treatment in patients who do not respond to other therapies. The role of other

agents used in focal segmental glomerulosclerosis, including azathioprine, mycophenolate mofetil, tacrolimus, pefloxacin or vitamin E is still poorly defined.

L53 ANSWER 15 OF 231 MEDLINE on STN  
AN 2001681245 MEDLINE  
DN 21586137 PubMed ID: 11728167  
TI Influence of antioxidative vitamins A, C and E on lipid peroxidation in BOP-induced pancreatic cancer in Syrian hamsters.  
AU Wenger F A; Kilian M; Ridders J; Stahlknecht P; Schimke I; Guski H; Jacobi C A; Muller J M  
CS Department of General Visceral, Vascular and Thoracic Surgery, Charite Campus Mitte, Humboldt-University of Berlin, Germany.. charipanc@aol.com  
SO PROSTAGLANDINS LEUKOTRIENES AND ESSENTIAL FATTY ACIDS, (2001 Sep) 65 (3) 165-71.  
Journal code: 8802730. ISSN: 0952-3278.  
CY Scotland: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 200112  
ED Entered STN: 20011203  
Last Updated on STN: 20020124  
Entered Medline: 20011231  
AB Persistent oxidative stress is thought to play an important role in carcinogenesis. Vitamins may influence oxygen radical metabolism and thus inhibit tumor growth. In the present trial the effects of Vitamins (Vit.) A, C and E on neoplastic growth and lipid peroxidation in pancreatic tissue were evaluated on chemically-induced pancreatic adenocarcinoma in the Syrian hamster. The incidence of pancreatic cancer was decreased by Vit. A (64.3%) and Vit. C (71.4%) as compared to the control group (100%, P<0.05). All vitamins increased the activity of superoxidodismutase (SOD) in pancreatic carcinomas. Accumulation of vitamins in tumor cells seems to be responsible for high levels of SOD and consecutive intracellular increase of hydrogen peroxide levels. Since this effect is selectively toxic for tumor cells it might be one of the mechanisms decreasing the incidence of pancreatic cancer in our trial. Copyright 2001 Harcourt Publishers Ltd.

L53 ANSWER 16 OF 231 MEDLINE on STN  
AN 2001300522 MEDLINE  
DN 21142919 PubMed ID: 11208955  
TI Vitamin E: mechanisms of action as tumor cell growth inhibitors.  
AU Kline K; Yu W; Sanders B G  
CS Division of Nutrition and. School of Biological Sciences, The University of Texas at Austin, Austin, TX 78712, USA.. k.kline@mail.utexas.edu  
NC CA59739 (NCI)  
SO JOURNAL OF NUTRITION, (2001 Jan) 131 (1) 161S-163S. Ref: 25  
Journal code: 0404243. ISSN: 0022-3166.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**  
(REVIEW, TUTORIAL)  
LA English  
FS Priority Journals  
EM 200105  
ED Entered STN: 20010604



Last Updated on STN: 20010604

Entered Medline: 20010531

L53 ANSWER 17 OF 231 MEDLINE on STN  
AN 2001202656 MEDLINE  
DN 21142918 PubMed ID: 11208954  
TI Evaluation of the in vitro and in vivo antitumor activities of vitamin C and K-3 combinations against human prostate cancer.  
AU Jamison J M; Gilloteaux J; Taper H S; Summers J L  
CS Department of Urology, Summa Health Foundation and NEOUCOM, Rootstown, OH 44272, USA.. jmj@neoucom.edu  
SO JOURNAL OF NUTRITION, (2001 Jan) 131 (1) 158S-160S. Ref: 24  
Journal code: 0404243. ISSN: 0022-3166.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**  
(REVIEW, TUTORIAL)  
LA English  
FS Priority Journals  
EM 200105  
ED Entered STN: 20010604  
Last Updated on STN: 20010604  
Entered Medline: 20010531

L53 ANSWER 18 OF 231 MEDLINE on STN  
AN 2001136095 MEDLINE  
DN 21115931 PubMed ID: 11221959  
TI Suppression of tumor growth and metastasis by dietary fish oil combined with vitamins E and C and cisplatin.  
AU Yam D; Peled A; Shinitzky M  
CS Department of Biological Chemistry, The Weizmann Institute of Science, Rehovot, Israel.  
SO CANCER CHEMOTHERAPY AND PHARMACOLOGY, (2001) 47 (1) 34-40.  
Journal code: 7806519. ISSN: 0344-5704.  
CY Germany: Germany, Federal Republic of  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 200103  
ED Entered STN: 20010404  
Last Updated on STN: 20010404  
Entered Medline: 20010301

AB PURPOSE: The anticancer activity of omega-3 polyunsaturated fatty acids (omega-3 PUFA) has been shown in a large number of studies. This study was undertaken to analyze the combined effect of omega-3 PUFA and antioxidative vitamins on the level of spontaneous metastatic dissemination. The supportive effect of this dietary combination on chemotherapy with cisplatin (CP) was determined in parallel. METHODS: C57BL/6J mice bearing the Lewis lung carcinoma 3LL were fed ad libitum one of three isocaloric diets containing 5% soybean oil supplemented with 40 mg/kg alpha-tocopherol acetate (SO diet), or 4% fish oil plus 1% corn oil, and basal amounts of vitamin E (FO diet) or FO diet supplemented with vitamins E and C (FO+E+C diet). These diets were tested in combination with the conventional cytotoxic agent CP in a series of regimens. Tumor growth, feed consumption, body weight, lung metastasis and lung histology were followed. RESULTS: Both the FO dietary groups showed significantly lower tumor development than the SO group in all examined parameters,

indicating that omega-3 PUFA have anticancer activity. However, the FO diet, in comparison with the FO+E+C diet induced a significantly slower rate of tumor growth, and lower metastatic load, as reflected in lung weight. The decrease in the anticancer activity of FO by the addition of vitamins E and C suggests that in situ oxidation of omega-3 PUFA underlies their anticancer action. It is thus proposed that oxidized omega-3 PUFA accumulates in the membranes and the cytosol of tumor cells, reducing their vitality and eventually leading to their death. No signs of anorexia or cachexia were observed in either FO group, in contrast to the SO group. CP treatment with the SO diet had no apparent therapeutic effect, while with the FO diets it reduced the metastatic load. The best regimen of this combined treatment was FO diet followed by CP treatment with FO diet supplemented with vitamins E and C after resection of the primary growth. This regimen could be translated to a combined therapy for human cancer. CONCLUSIONS: Diets enriched with omega-3 PUFA may have beneficial anticancer effects in particular when containing only basal amounts of antioxidants such as vitamin E or C. Furthermore, the addition of drugs which promote oxidation of omega-3 PUFA, such as ferrous salts (e.g. as prescribed for the treatment of anemia), may further increase these effects. However, the supportive effect of omega-3 PUFA in chemotherapy (e.g. with CP) increases when vitamins E and C are also included.

L53 ANSWER 19 OF 231 MEDLINE on STN  
 AN 2001064389 MEDLINE  
 DN 20555157 PubMed ID: 11103660  
 TI Potential mechanisms of diet therapy for fibrocystic breast conditions show inadequate evidence of effectiveness.  
 AU Horner N K; Lampe J W  
 CS Division of Public Health Sciences, Fred Hutchinson Cancer Research Center, Seattle, WA 98109-1024, USA.  
 NC R03 CA80648 (NCI)  
 SO JOURNAL OF THE AMERICAN DIETETIC ASSOCIATION, (2000 Nov) 100 (11) 1368-80.  
 Ref: 106  
 Journal code: 7503061. ISSN: 0002-8223.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 EM 200012  
 ED Entered STN: 20010322  
 Last Updated on STN: 20010322  
 Entered Medline: 20001222  
 AB Fibrocystic breast conditions, formerly referred to as fibrocystic breast disease, affect about half of all women and typically present as any combination of breast nodularity, swelling, and pain. We reviewed the literature to evaluate evidence supporting nutrition interventions commonly recommended for fibrocystic breast conditions by health care providers. Randomized, controlled studies of the effectiveness of caffeine restriction fail to support any benefit in fibrocystic breast conditions. Similarly, evidence supporting evening primrose oil, vitamin E, or pyridoxine as treatments for the discomforts of fibrocystic breast conditions is insufficient to draw conclusions about effectiveness. Dietary alterations that influence the intermediate markers for fibrocystic breast conditions include low-fat (15% to 20% energy),

high-fiber (30 g/day), and soy isoflavone regimens. However, our findings provide no solid evidence for secondary prevention or treatment of fibrocystic breast conditions through a dietary approach. Health care providers should limit recommendations to proven diet therapies supported by randomized, placebo-controlled trials, given the instability inherent in fibrocystic breast conditions and the near 20% placebo effect associated with intervention. Because excessive estrogen or altered sensitivity to estrogen is the dominant theory of etiology, interventions that may modulate endogenous steroid hormones warrant further investigation as potential treatments for symptomatic fibrocystic breast conditions.

L53 ANSWER 20 OF 231 MEDLINE on STN  
 AN 2000126354 MEDLINE  
 DN 20126354 PubMed ID: 10657911  
 TI Lung cancer chemoprevention.  
 AU Khuri F R; Lippman S M  
 CS Departments of Thoracic/Head and Neck Medical Oncology, The University of Texas M. D. Anderson Cancer Center, Houston, Texas 77030, USA.  
 SO SEMINARS IN SURGICAL ONCOLOGY, (2000 Mar) 18 (2) 100-5. Ref: 46  
 Journal code: 8503713. ISSN: 8756-0437.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
     **General Review; (REVIEW)**  
     (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 200003  
 ED Entered STN: 20000320  
     Last Updated on STN: 20000320  
     Entered Medline: 20000307  
 AB Lung cancer is the leading cause of cancer death in the United States. The persisting grim lung cancer incidence and mortality figures argue powerfully for new approaches such as chemoprevention for controlling this disease. Retinoids are among the most intensively studied cancer chemoprevention agents, including in the lung. Several randomized clinical or translational chemoprevention trials (e.g., of retinoids, beta-carotene, or combined folic acid and vitamin B(12)) have been conducted in lung pre-malignancy. Retinoid studies have produced important data on molecular/cellular markers of lung carcinogenesis, e.g., loss of heterozygosity (LOH) at 3p and 9p and retinoic acid receptor-beta (RAR-beta). Two large randomized trials with a lung cancer endpoint, the Alpha-Tocopherol, Beta-Carotene (ATBC) Prevention Study and the Beta-Carotene and Retinol Efficacy Trial (CARET), found that beta-carotene (+/- retinol) was harmful (in smokers). Recently completed lung-second-primary-tumor-prevention trials include the retinoids retinyl palmitate and 13-cis-retinoic acid (13cRA) and N-acetylcysteine (NAC). Vitamin E and selenium show promise for lung cancer prevention, based on positive secondary/subset analyses of three large-scale, randomized National Cancer Institute (NCI) cancer prevention trials. Future directions of lung cancer chemoprevention include the study of molecular markers of risk and drug activity, molecular targeting study, improved imaging techniques (e.g., molecular imaging) and new drug delivery systems.  
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L53 ANSWER 21 OF 231 MEDLINE on STN

AN 1999399110 MEDLINE  
DN 99399110 PubMed ID: 10470124  
TI Antitumor activity of benzo[a]phenothiazines.  
AU Motohashi N; Kurihara T; Satoh K; Sakagami H; Mucsi I; Pusztai R; Szabo M; Molnar J  
CS Meiji Pharmaceutical University, Tokyo, Japan.  
SO ANTICANCER RESEARCH, (1999 May-Jun) 19 (3A) 1837-42. Ref: 20  
Journal code: 8102988. ISSN: 0250-7005.  
CY Greece  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)  
LA English  
FS Priority Journals  
EM 199909  
ED Entered STN: 19991005  
Last Updated on STN: 19991005  
Entered Medline: 19990920  
AB We have previously reported on the diverse biological activities of benzo[a]phenothiazines, such as the induction of antitumor and antimutagenic activity in vivo, and differentiation and apoptosis in vitro. The relationship of radical generation and pi-spin density or dipole moment was investigated, using quantum-chemical calculation with UHF/PM3. These data suggest that the origin of radical generation by active benzo[a]phenothiazines, which affect such biological activities might be N-atom at position 12.

L53 ANSWER 22 OF 231 MEDLINE on STN  
AN 2000024263 MEDLINE  
DN 20024263 PubMed ID: 10560473  
TI Preventing heart disease and cancer. What randomized, primary-prevention studies show.  
AU Lush D T  
CS Primary Care Unit, MCP Hahnemann University, Philadelphia, PA, USA.  
SO POSTGRADUATE MEDICINE, (1999 Oct 15) 106 (5) 143-8. Ref: 15  
Journal code: 0401147. ISSN: 0032-5481.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW LITERATURE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 199911  
ED Entered STN: 20000111  
Last Updated on STN: 20000111  
Entered Medline: 19991124  
AB Several chemical agents appear to be useful in primary prevention of CAD and cancer. Randomized trials have found that in specific patient subgroups, tamoxifen and raloxifene decreased the occurrence of breast cancer, and lovastatin and aspirin decreased the frequency of CAD events. Secondary analysis of randomized primary-prevention studies has supported the use of vitamin E and selenium in cancer prevention.

L53 ANSWER 23 OF 231 MEDLINE on STN  
AN 1999331930 MEDLINE  
DN 99331930 PubMed ID: 10405044  
TI Optimal dietary concentration of vitamin E for alleviating the effect of

heat stress on egg production in laying hens.

AU Bollengier-Lee S; Williams P E; Whitehead C C  
CS Roslin Institute (Edinburgh), Midlothian, Scotland.  
SO BRITISH POULTRY SCIENCE, (1999 Mar) 40 (1) 102-7.  
Journal code: 15740290R. ISSN: 0007-1668.

CY ENGLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199908  
ED Entered STN: 19990816  
Last Updated on STN: 19990816  
Entered Medline: 19990803

AB 1. The effects of different dietary concentrations of vitamin E (alpha-tocopherol acetate) were investigated on laying hens exposed to chronic heat stress at 32 degrees C from 26 to 30 weeks of age. 2. Diets containing 5 dietary concentrations of vitamin E (a control diet containing 10 mg alpha-tocopherol/kg or this diet supplemented to contain 125, 250, 375 and 500 mg alpha-tocopherol/kg) were fed to 335 birds. Half of the birds received the supplemented diets for only 4 weeks before the heat stress period (short supplementation duration, SSD) and were fed on the control diet for a further 12 weeks. The remaining birds were fed on the supplemented diets throughout the experiment, 4 weeks before, 4 weeks during and 8 weeks after the heat stress period (long supplementation duration, LSD). 3. Egg production was significantly higher during (80-6 vs 68.9%,  $P < 0.02$ ) and after (75.3 vs 62.7%,  $P < 0.02$ ) the period of stress in the LSD group fed on the diet containing 250 mg vitamin E/kg compared with the group fed on the control diet. LSD birds given 375 and 500 mg vitamin E/kg also had higher egg production than control birds during heat stress but the differences failed to reach significance (74.6 vs 68.9% and 77.1 vs 68.9% respectively). In the SSD groups, mean egg production of the birds given the diets supplemented with 125 mg vitamin E/kg or more was significantly different from the control group after heat stress (70.3 vs 62.7%,  $P < 0.05$ ). Egg weight and food intake were similar in all the groups. 4. Plasma and liver vitamin E concentrations were proportional to the vitamin E intake before the stress period, dropped during heat stress in the SSD groups but were maintained at concentrations closer to those observed before heat stress in the LSD groups. 5. It is concluded that a dietary supplement of 250 mg vitamin E/kg provided before, during and after heat stress is optimum for alleviating, at least in part, the adverse effects of chronic heat stress in laying hens.

L53 ANSWER 24 OF 231 MEDLINE on STN  
AN 97218583 MEDLINE  
DN 97218583 PubMed ID: 9066020  
TI Effects of vitamin E on monocyte acute stress response.  
AU Anonymous  
SO THROMBOSIS AND HAEMOSTASIS, (1997 Mar) 77 (3) 604-5.  
Journal code: 7608063. ISSN: 0340-6245.

CY GERMANY: Germany, Federal Republic of  
DT Letter  
LA English  
FS Priority Journals  
EM 199706  
ED Entered STN: 19970630  
Last Updated on STN: 19970630  
Entered Medline: 19970619

L53 ANSWER 25 OF 231 MEDLINE on STN  
AN 1998155652 MEDLINE  
DN 98155652 PubMed ID: 9494548  
TI Comparative study of the antitumor action between sodium  
5,6-benzylidene-L-ascorbate and sodium ascorbate (minireview).  
AU Sakagami H; Satoh K; Kochi M  
CS Department of Dental Pharmacology, Meikai University School of Dentistry,  
Saitama, Japan.  
SO ANTICANCER RESEARCH, (1997 Nov-Dec) 17 (6D) 4451-2. Ref: 28  
Journal code: 8102988. ISSN: 0250-7005.  
CY Greece  
DT Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**  
(REVIEW, TUTORIAL)  
LA English  
FS Priority Journals  
EM 199803  
ED Entered STN: 19980407  
Last Updated on STN: 19980407  
Entered Medline: 19980326  
AB This review summarizes our comparative study of the antitumor action of  
sodium 5,6-benzylidene-L-ascorbate (SBA) and sodium ascorbate. Both SBA  
and ascorbate produced ascorbate radicals during decomposition, elevated  
oxidation potential and oxidized methionine to methionine sulfoxide, in  
the regular culture medium. They induced apoptotic cell death  
(characterized by internucleosomal DNA fragmentation) in human myelogenous  
leukemic cell lines, but killed most of other tumor cell lines by necrosis  
without induction of internucleosomal DNA fragmentation. The cytotoxic  
activity of SBA and ascorbate was significantly enhanced in the presence  
of copper and the stimulation effect of copper was reduced by a heavy  
metal antagonist. However, the cytotoxic activity of SBA was only  
slightly modified by iron, cysteine analog or catalase, in contrast to  
ascorbate, which was highly sensitive to all these agents. Furthermore,  
intravenous administration of SBA induced degeneration in  
chemically-induced hepatocellular carcinoma whereas ascorbate was  
inactive. These data suggest the differential mode of antitumor action  
between these two compounds.

L53 ANSWER 26 OF 231 MEDLINE on STN  
AN 97392572 MEDLINE  
DN 97392572 PubMed ID: 9250786  
TI Tretinoin tocoferil as a possible differentiation-inducing agent against  
myelomonocytic leukemia.  
AU Makishima M; Honma Y  
CS Department of Chemotherapy, Saitama Cancer Center Research Institute,  
Ina-machi, Japan.  
SO LEUKEMIA AND LYMPHOMA, (1997 Jun) 26 (1-2) 43-8. Ref: 55  
Journal code: 9007422. ISSN: 1042-8194.  
CY Switzerland  
DT Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**  
(REVIEW, TUTORIAL)  
LA English  
FS Priority Journals  
EM 199709  
ED Entered STN: 19971013

Last Updated on STN: 19971013

Entered Medline: 19970926

AB Tretinoin tocoferil is an alpha-tocopherol ester of all-trans retinoic acid (ATRA) and safely used to treat skin ulcers. Tretinoin tocoferil stimulates the formation of granulation tissue in the ulcer, and enhances the migration of guinea pig macrophages and stimulates the proliferation of human skin fibroblasts. These effects are different from those of either ATRA or alpha-tocopherol. Tretinoin tocoferil induces the granulocytic differentiation of human promyelocytic leukemia HL-60 cells, and more than additively enhances cellular differentiation induced by sub-optimal concentrations of ATRA. Tretinoin tocoferil and ATRA synergistically inhibit the proliferation of HL-60 cells, suggesting that tretinoin tocoferil acts differently than ATRA on leukemia cells. Tretinoin tocoferil also enhances the differentiation of HL-60 cells induced by dimethyl sulfoxide, phorbol ester and  $\alpha$ ,25-dihydroxyvitamin D<sub>3</sub> (VD<sub>3</sub>). Tretinoin tocoferil and VD<sub>3</sub> synergistically inhibit the proliferation and induce the differentiation of other myelomonocytic leukemia cells. Toxicity tests in animal models have shown that tretinoin tocoferil is at least 150 times less toxic than ATRA and does not induce teratogenesis. Therefore, the combination of tretinoin tocoferil and VD<sub>3</sub> may be useful for treating myelomonocytic leukemia.

L53 ANSWER 27 OF 231 MEDLINE on STN

AN 96297694 MEDLINE

DN 96297694 PubMed ID: 8679274

TI [Prevention of second primary cancer with vitamin supplementation in patients treated for head and neck cancers].

Prevention des seconds cancers primaires par supplementation vitaminique chez les patients traites pour un cancer ORL.

AU Bairati I; Brochet F; Roy J; Gelinas M; Nabid A; Tetu B; Masse B; Meyer F  
CS Groupe de recherche en epidemiologie de l'Universite Laval, Quebec, Canada.

SO BULLETIN DU CANCER. RADIOTHERAPIE, (1996) 83 (1) 12-6. Ref: 37  
Journal code: 9005324. ISSN: 0924-4212.

CY France.

DT Journal; Article; (JOURNAL ARTICLE)

**General Review; (REVIEW)**

(REVIEW, TUTORIAL)

LA French

FS Priority Journals

EM 199608

ED Entered STN: 19960828

Last Updated on STN: 19960828

Entered Medline: 19960820

AB Second primary cancers often occur in head and neck cancer patients successfully treated by radiation therapy. Experimental and epidemiological data suggest that these second primaries might be prevented by antioxidant vitamins, in particular beta-carotene and alpha-tocopherol. A randomized double-blind clinical trial is being conducted in Canada to determine whether vitamin supplementation with beta-carotene (30 mg/d) and alpha-tocopherol (400 IU/d) reduces the incidence of second primaries in head and neck cancer patients treated by radiation therapy.

L53 ANSWER 28 OF 231 MEDLINE on STN

AN 95244182 MEDLINE

DN 95244182 PubMed ID: 7537050

TI [Oxidative stress in the treatment of tumors and AIDS. Iatrogenic disease caused by antineoplastic agents. Preventive action of antioxidant agents]. Estres oxidativo en el tratamiento de tumores y en el S.I.D.A. Yatrogenia de los agentes antineoplasticos. Acciones preventivas de los agentes antioxidantes.

AU Romero Alvira D; Mur Villacampa M; Guerrero Navarro L; Gotor Lazaro M A  
CS Hospital del INSALUD, Calatayud, Zaragoza.  
SO REVISTA ESPANOLA DE ENFERMEDADES DIGESTIVAS, (1995 Jan) 87 (1) 38-48.  
Ref: 128  
Journal code: 9007566. ISSN: 1130-0108.  
CY Spain  
DT Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**  
(REVIEW, TUTORIAL)  
LA Spanish  
FS Priority Journals; AIDS  
EM 199505  
ED Entered STN: 19950608  
Last Updated on STN: 19970203  
Entered Medline: 19950530

L53 ANSWER 29 OF 231 MEDLINE on STN  
AN 95078887 MEDLINE  
DN 95078887 PubMed ID: 7987360  
TI alpha-Tocopherol supplementation in racing cyclists during extreme endurance training.  
CM Comment in: Int J Sport Nutr. 1994 Sep;4(3):203-4  
Comment in: Int J Sport Nutr. 1995 Jun;5(2):165-7  
AU Rokitzki L; Logemann E; Huber G; Keck E; Keul J  
CS Institute of Forensic Medicine, University Hospital, Freiburg, Germany.  
SO INTERNATIONAL JOURNAL OF SPORT NUTRITION, (1994 Sep) 4 (3) 253-64.  
Journal code: 9307702. ISSN: 1050-1606.  
CY United States  
DT (CLINICAL TRIAL)  
Journal; Article; (JOURNAL ARTICLE)  
(RANDOMIZED CONTROLLED TRIAL)  
LA English  
FS Priority Journals  
EM 199501  
ED Entered STN: 19950124  
Last Updated on STN: 20021218  
Entered Medline: 19950112

AB This study was undertaken to evaluate the effects of 5 months of alpha-tocopherol supplementation on physical performance during aerobic exercise training in 30 top-class cyclists. Antioxidative effects of supplementation were also studied. Plasma alpha-tocopherol concentration increased significantly in the vitamin E-supplemented group, whereas the placebo group showed a trend toward decrease. Physical performance did not improve in the alpha-tocopherol-supplemented group compared to the placebo group. Heart rates were also not significantly different. Lactate concentrations at the aerobic threshold and the anaerobic threshold were identical. Thus, there was no performance improvement in the alpha-tocopherol-supplemented group. However there was a significant reduction in CK in serum of the E-supplemented group. A trend toward decrease in GOT, GPT, and LDH was observed with alpha-tocopherol supplementation. Moreover, significantly reduced malondialdehyde serum levels were measured in the E-supplemented group. The findings indicate a



protective effect of alpha-tocopherol supplementation against oxidative stress induced by strenuous exercise.

L53 ANSWER 30 OF 231 MEDLINE on STN  
AN 95272328 MEDLINE  
DN 95272328 PubMed ID: 7752835  
TI Apparent partial remission of breast cancer in 'high risk' patients supplemented with nutritional antioxidants, essential fatty acids and coenzyme Q10.  
AU Lockwood K; Moesgaard S; Hanioka T; Folkers K  
CS Private Outpatient Clinic, Copenhagen, Denmark.  
SO MOLECULAR ASPECTS OF MEDICINE, (1994) 15 Suppl s231-40.  
Journal code: 7603128. ISSN: 0098-2997.  
CY ENGLAND: United Kingdom  
DT (CLINICAL TRIAL)  
Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199506  
ED Entered STN: 19950629  
Last Updated on STN: 19950629  
Entered Medline: 19950621  
AB Thirty-two typical patients with breast cancer, aged 32-81 years and classified 'high risk' because of tumor spread to the lymph nodes in the axilla, were studied for 18 months following an Adjuvant Nutritional Intervention in Cancer protocol (ANICA protocol). The nutritional protocol was added to the surgical and therapeutic treatment of breast cancer, as required by regulations in Denmark. The added treatment was a combination of nutritional antioxidants (Vitamin C: 2850 mg, Vitamin E: 2500 iu, beta-carotene 32.5 iu, selenium 387 micrograms plus secondary vitamins and minerals), essential fatty acids (1.2 g gamma linolenic acid and 3.5 g n-3 fatty acids) and Coenzyme Q10 (90 mg per day). The ANICA protocol is based on the concept of testing the synergistic effect of those categories of nutritional supplements, including vitamin Q10, previously having shown deficiency and/or therapeutic value as single elements in diverse forms of cancer, as cancer may be synergistically related to diverse biochemical dysfunctions and vitamin deficiencies. Biochemical markers, clinical condition, tumor spread, quality of life parameters and survival were followed during the trial. Compliance was excellent. The main observations were: (1) none of the patients died during the study period. (the expected number was four.) (2) none of the patients showed signs of further distant metastases. (3) quality of life was improved (no weight loss, reduced use of pain killers). (4) six patients showed apparent partial remission.

L53 ANSWER 31 OF 231 MEDLINE on STN  
AN 94359449 MEDLINE  
DN 94359449 PubMed ID: 8078452  
TI Vitamin E supplementation in the critically ill patient: too narrow a view?.  
AU Kelly F J  
SO NUTRITION IN CLINICAL PRACTICE, (1994 Aug) 9 (4) 141-5. Ref: 46  
Journal code: 8606733. ISSN: 0884-5336.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)

LA English  
FS Nursing Journals  
EM 199410  
ED Entered STN: 19941013  
Last Updated on STN: 19941013  
Entered Medline: 19941006

AB Oxidative stress plays an important contributory role in a number of diseases. In critically ill patients, oxidative stress is a major problem that results from a number of compounding factors such as supportive oxygen therapy, pulmonary inflammation, and the nutritional inadequacies of these patients. It has been known for some time that the circulating concentration of vitamin E, the primary lipid-soluble antioxidant, is low in critically ill patients. However, supplementation with vitamin E by oral loading has not been successful in improving clinical status. A better understanding of the bioavailability of vitamin E in these patients and of the synergistic action of other antioxidant nutrients such as vitamin C and glutathione with vitamin E has provided new opportunities to reexamine the use of antioxidant supplementation for the critically ill.

L53 ANSWER 32 OF 231 MEDLINE on STN  
AN 94200145 MEDLINE  
DN 94200145 PubMed ID: 8149899  
TI Effect of vitamin E on some leucocytic parameters and functions in transported calves.  
AU Mudron P; Kovac G; Bajova V; Pistl J; Choma J; Bartko P; Scholz H  
CS University of Veterinary Medicine Kosice.  
SO DTW. DEUTSCHE TIERARZTLICHE WOCHENSCHRIFT, (1994 Feb) 101 (2) 47-9.  
Journal code: 7706565. ISSN: 0341-6593.  
CY GERMANY: Germany, Federal Republic of  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199405  
ED Entered STN: 19940523  
Last Updated on STN: 19940523  
Entered Medline: 19940506

AB The objective of this investigation was to determine the effect of vitamin E administration on leucocyte parameters and some of their functions in transported calves. In the study 8 calves, aged approx. 10 days, divided into two groups, were used. 20 mg of tocopheryl-acetate per kg body weight were administered orally to each of the 4 experimental calves 24 hours before loading. The calves were transported by road for 3 hours. Blood samples collected before and after the transportation were examined for total and differential leucocyte counts, T-lymphocyte subpopulation, phagocytic activity, leucocyte migration, serum immunoglobulin levels, and for plasma vitamin E and cortisol levels. The animals showed a leucocytosis with neutrophilia and lymphopenia after transportation. The administration of vitamin E led to a decrease of cortisol level in 24 hours. There was no difference between groups in cortisol reaction due to transportation stress. Leucocyte migration has been less inhibited in the control group after unloading. A mild decline in phagocytic activity was observed 3 hours after transportation. Serum immunoglobulins were unaffected by both vitamin E administration and transportation. Vitamin E had no significant effect on leucocyte function and cortisol levels in present study.

L53 ANSWER 33 OF 231 MEDLINE on STN

AN 93378576 MEDLINE  
 DN 93378576 PubMed ID: 8368957  
 TI Effect of dietary vitamin E supplementation and rotational stress on alveolar bone loss in rice rats.  
 AU Cohen M E; Meyer D M  
 CS Naval Dental Research Institute, Great Lakes, IL 60088.  
 SO ARCHIVES OF ORAL BIOLOGY, (1993 Jul) 38 (7) 601-6.  
 Journal code: 0116711. ISSN: 0003-9969.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Dental Journals; Priority Journals  
 EM 199310  
 ED Entered STN: 19931022  
 Last Updated on STN: 19931022  
 Entered Medline: 19931007  
 AB The effect of this supplementation on bone loss (distance from the cementum-enamel junction to the alveolar crest measured at the midline of the lingual aspect of each of the mandibular molar roots) was studied in rats that were either not stressed or stressed on a rotational device for 90 days. In the first study, neither vitamin E nor stress condition had statistically significant effects but there was substantial bone loss and bone-loss variability in all groups. Before the start of the second study, to reduce differences in bone loss that might otherwise exist before introduction of the treatments, rats received an antibiotic in their drinking water. In addition, rotational stress was introduced more abruptly than in the first study to reduce the likelihood of adaptation. Bone loss and bone-loss variability were substantially reduced in the second study. Analysis of these data indicated that vitamin E supplementation had a statistically significant protective effect, which was most pronounced at sites most susceptible to loss. Stressed subjects tended to lose more bone, but this effect was not significant. These findings suggest some role for vitamin E supplementation in the maintenance of periodontal health but also a sensitivity in this effect to initial periodontal status.

L53 ANSWER 34 OF 231 MEDLINE on STN  
 AN 94162586 MEDLINE  
 DN 94162586 PubMed ID: 8118001  
 TI [The stress-protective effect of a new derivative of n-3-polyunsaturated fatty acids].  
 Stress-protektornyi effekt novogo proizvodnogo n-3-polinenasyshchennykh zhirnykh kislot.  
 AU Kresiun V I; Iurlov V M; Tishchenko A V; Oleinik N N  
 SO BIULLETEN EKSPERIMENTALNOI BIOLOGII I MEDITSINY, (1993 Sep) 116 (9) 274-7.  
 Journal code: 0370627. ISSN: 0365-9615.  
 CY RUSSIA: Russian Federation  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA Russian  
 FS Priority Journals  
 EM 199404  
 ED Entered STN: 19940412  
 Last Updated on STN: 19940412  
 Entered Medline: 19940406  
 AB It has been established that prophylactic oral administration of the new derivative of n-3 polyunsaturated fatty acids--P-55 in a daily dose of 0.2 g/kg during 30 days prevents some morphological and physiological

manifestations of the chronic stress-syndrome in white rats. There were normalized body and some internal organs weights, content and distribution of ascorbic acid in the adrenal tissue; decreased intensity of gastric ulcerogenesis. The behaviour of animals became more quiet. It is concluded that the preparation P-55 has a stress-protective effect during its prophylactic administration.

L53 ANSWER 35 OF 231 MEDLINE on STN  
 AN 93349325 MEDLINE  
 DN 93349325 PubMed ID: 8394075  
 TI Effect of pretreatment with vitamin E or diazepam on brain metabolism of stressed rats.  
 AU Shaheen A A; Hamdy M A; Kheir-Eldin A A; Lindstrom P; el-Fattah A A  
 CS Department of Biochemistry, Faculty of Pharmacy, Cairo University, Egypt.  
 SO BIOCHEMICAL PHARMACOLOGY, (1993 Jul 6) 46 (1) 194-7.  
 Journal code: 0101032. ISSN: 0006-2952.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199309  
 ED Entered STN: 19930924  
 Last Updated on STN: 19930924  
 Entered Medline: 19930907  
 AB The effect of vitamin E (VE) or diazepam (DZ) pretreatment on some carbohydrate metabolic aspects in the brains of stressed rats was studied. DZ and VE were given i.p. at doses of 5 mg/kg body wt for 6 days prior to subjecting the animals to single swimming stress (SSS). Pretreatment of the rats with DZ or VE diminished the stress-induced increases in plasma corticosterone and glucose levels and reversed the decrease due to stress on brain ATP, glucose, glycogen and pyruvate contents. The increase in brain ADP and lactate was brought back to levels which approached the pre-stressed values. Moreover, DZ and VE pretreatments helped in attenuating the stress-induced alteration in brain mitochondrial and cytosolic hexokinase as well as sodium, potassium adenosine triphosphatase (Na<sup>+</sup>,K<sup>+</sup>)-ATPase activities. The change in these metabolic parameters produced by VE pre-treatment was less than that exhibited by DZ. The effects of VE were explained in light of its antioxidant property in preventing the free radical production and lipid peroxide formation which are important factors in the pathogenesis of stress.

L53 ANSWER 36 OF 231 MEDLINE on STN  
 AN 93343829 MEDLINE  
 DN 93343829 PubMed ID: 8343086  
 TI Treatment with vitamins A, D and E did not reduce weight loss in transported cattle.  
 AU Jubb T F; Pinch D S; Petty S R  
 CS Department of Agriculture, Kununurra, Western Australia.  
 SO AUSTRALIAN VETERINARY JOURNAL, (1993 May) 70 (5) 171-3.  
 Journal code: 0370616. ISSN: 0005-0423.  
 CY Australia  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199309  
 ED Entered STN: 19930917  
 Last Updated on STN: 19930917

Entered Medline: 19930902

AB Two field trials using an injectable vitamin A, D and E solution conducted in the pastoral environment of northern Australia are described. It was found that treatment of lighter (< 150 kg) or heavier (> 372 kg) weight cattle did not reduce weight loss during road transport. These findings contradict anecdotal evidence of reduced weight loss during transport with the use of vitamins A, D and E. The lack of scientific basis for their use is discussed.

L53 ANSWER 37 OF 231 MEDLINE on STN

AN 92304341 MEDLINE

DN 92304341 PubMed ID: 1610386

TI Exercise-induced oxidant stress in the lung tissue: role of dietary supplementation of vitamin E and selenium.

AU Veera Reddy K; Charles Kumar T; Prasad M; Reddanna P

CS School of Life Sciences, University of Hyderabad, India.

SO BIOCHEMISTRY INTERNATIONAL, (1992 Apr) 26 (5) 863-71.

Journal code: 8100311. ISSN: 0158-5231.

CY Australia

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199207

ED Entered STN: 19920731

Last Updated on STN: 19920731

Entered Medline: 19920717

AB Strenuous physical exercise in the form of swimming in female albino rats increased the oxidative reactions, probably leading to the generation of oxy-free radicals in the lung tissue. Free radical-mediated lipid peroxidation measured in the form of lipid peroxides increased in the pulmonary tissue in response to exhaustive exercise, indicating such a possibility. Dietary supplementation of vitamin E (Vit.E) and selenium (Se) for a period of 12 weeks reduced the oxidative reactions and the ensuing lipid peroxidation in the pulmonary tissue. Physical exercise in control animals induced the activity of superoxide dismutase (SOD), the superoxide anion radical (O<sub>2</sub>·) quencher. However, the SOD levels in nutrient-fed animals at rest and after exercise remained well below the control levels, indicating the decreased generation of oxy-free radicals in them. Similarly, selenium-dependent glutathione peroxidase (Se-GSH Px), the enzyme involved in the reduction of organic and inorganic peroxides, and glutathione S-transferase (GST), the multifunctional protein involved in the detoxification of a number of xenobiotics, were increased in response to exercise in control animals, but were significantly decreased in nutrient-fed animals upon exercise. The induction of GST seems to be more towards the peroxidase activity of GST, i.e., non-selenium glutathione peroxidase (Non-Se-GSH Px), which is primarily involved in the reduction of endoperoxides. The studies thus indicate the induction of oxidative stress in the pulmonary tissue upon exhaustive physical exercise and the effectiveness of vit.E and Se independently and more so in combination in combating the exercise-induced oxidant stress.

L53 ANSWER 38 OF 231 MEDLINE on STN

AN 93038344 MEDLINE

DN 93038344 PubMed ID: 1417599

TI Effects of ascorbic acid on stress and disease in chickens.

AU Gross W B

CS Department of Large Animal Clinical Sciences, Virginia-Maryland Regional  
College of Veterinary Medicine, Virginia Polytechnic Institute and State  
University, Blacksburg 24061.

SO AVIAN DISEASES, (1992 Jul-Sep) 36 (3) 688-92.  
Journal code: 0370617. ISSN: 0005-2086.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199211

ED Entered STN: 19930122  
Last Updated on STN: 19930122  
Entered Medline: 19921125

AB White leghorn chickens were given feed containing 100 mg of ascorbic acid  
(AA)/kg. One day later, treated chickens and a similar group of  
unmedicated control chickens were chilled for 1 hour at 6 C, exposed to an  
unusual sound, fasted, or subjected to rough handling.  
Heterophil:lymphocyte (H:L) ratios were determined one day later. The  
AA-treated birds had significantly lower H:L ratios than untreated  
controls. Chickens that received a diet containing AA had lower H:L  
ratios than controls (0.86 vs. 1.65) following administration of  
adrenocorticotrophic hormone. Chickens fed a diet containing AA showed  
increased resistance to a combined Newcastle disease virus-Mycoplasma  
gallisepticum infection and to a secondary Escherichia coli infection, as  
well as to a primary E. coli challenge infection. The effects of AA and  
an antibacterial drug (furaltadone) were additive. In all experiments,  
the optimum dose of AA was 100 mg/kg of feed. There was a negative  
correlation between AA level in the diet and feed efficiency.

L53 ANSWER 39 OF 231 MEDLINE on STN

AN 92253593 MEDLINE

DN 92253593 PubMed ID: 1579593

TI Interactions among antioxidants in health and disease: vitamin E and its  
redox cycle.

AU Packer L

CS Department of Molecular and Cell Biology, University of California,  
Berkeley 94720.

NC CA 47597 (NCI)

SO PROCEEDINGS OF THE SOCIETY FOR EXPERIMENTAL BIOLOGY AND MEDICINE, (1992  
Jun) 200 (2) 271-6. Ref: 30  
Journal code: 7505892. ISSN: 0037-9727.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**  
(REVIEW, TUTORIAL)

LA English

FS Priority Journals

EM 199206

ED Entered STN: 19920619  
Last Updated on STN: 19970203  
Entered Medline: 19920611

AB Probably most diseases at some point during their course involve free  
radical reactions in tissue injury. In some cases, free radical reactions  
may be involved in multiple sites and at different stages of a chronic  
disease. So, both acute and degenerative diseases are thought to involve  
free radical reactions in tissue injury. An overview will be given of the  
evidence for the occurrence of free radicals and the importance of

antioxidant interventions, with particular reference to the lipophilic antioxidant vitamin E (tocopherols and tocotrienols).

L53 ANSWER 40 OF 231 MEDLINE on STN  
 AN 92331984 MEDLINE  
 DN 92331984 PubMed ID: 1628852  
 TI The effect of ascorbate supplementation on oxidative stress in the streptozotocin diabetic rat.  
 AU Young I S; Torney J J; Trimble E R  
 CS Department of Clinical Biochemistry, Queen's University of Belfast, Northern Ireland.  
 SO FREE RADICAL BIOLOGY AND MEDICINE, (1992) 13 (1) 41-6.  
 Journal code: 8709159. ISSN: 0891-5849.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199208  
 ED Entered STN: 19920904  
 Last Updated on STN: 19970203  
 Entered Medline: 19920819  
 AB An increase in oxidative stress may contribute to the development of diabetic complications. The key aqueous-phase chain-breaking antioxidant ascorbate is known to be deficient in diabetes, and we have therefore investigated the effects of ascorbate supplementation on oxidative stress in the streptozotocin diabetic rat. Markers of lipid peroxidation (malondialdehyde [MDA] and diene conjugates) were increased in plasma and erythrocytes of untreated diabetic animals, and levels of the antioxidants ascorbate and retinol were reduced. Plasma tocopherol was unchanged. Insulin treatment normalized MDA and ascorbate levels, although ascorbate metabolism remained disturbed, as indicated by increased levels of dehydroascorbate. High-dose ascorbate supplementation in the absence of insulin treatment restored plasma ascorbate to normal and increased plasma retinol and tocopherol levels. However, MDA and diene conjugate levels remained unchanged, possibly as a result of increased iron availability. High-dose ascorbate supplementation should be approached with caution in diabetes, as ascorbate may exert both antioxidant and prooxidant effects in vivo.

L53 ANSWER 41 OF 231 MEDLINE on STN  
 AN 91313324 MEDLINE  
 DN 91313324 PubMed ID: 1713347  
 TI [Therapy of immune thrombopenia].  
 Therapie der Immunthrombopenie.  
 AU Egli F  
 CS Medizinische Poliklinik, Universitatsspital Zurich.  
 SO SCHWEIZERISCHE MEDIZINISCHE WOCHENSCHRIFT. JOURNAL SUISSE DE MEDECINE, (1991 Jun 8) 121 (23) 851-7. Ref: 27  
 Journal code: 0404401. ISSN: 0036-7672.  
 CY Switzerland  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA German  
 FS Priority Journals  
 EM 199108  
 ED Entered STN: 19910913

Last Updated on STN: 19960129

Entered Medline: 19910827

AB Idiopathic thrombocytopenic purpura (ITP) belongs to the family of autoimmune diseases. The term "idiopathic", however, is no longer correct as it is in fact an immunologically-related thrombocytopenia. This is why nowadays it is referred to as immune thrombopenia. Clinically the acute and chronic forms of ITP can be distinguished. We discuss the different forms of treatment based upon data provided by various studies of ITP. If treatment with prednisone or with gammaglobulins fails, or after unsuccessful splenectomy, then alternative experimental therapies may have to be used. Some of these treatments are described with reference to their therapeutic benefit and their function.

L53 ANSWER 42 OF 231 MEDLINE on STN

AN 92160194 MEDLINE

DN 92160194 PubMed ID: 1788878

TI [Effect of alpha-tocopherol on adrenal cortex functions under stress].  
Vliianie alpha-tokoferola na funktsiiu kory nadpochechnikov pri stresse.

AU Doroshkevich N A; Antsulevich S N; Vinogradov V V

SO UKRAINSKII BIOKHIMICHESKII ZHURNAL, (1991 Sep-Oct) 63 (5) 79-83.

Journal code: 7804246. ISSN: 0201-8470.

CY USSR

DT Journal; Article; (JOURNAL ARTICLE)

LA Russian

FS Priority Journals

EM 199203

ED Entered STN: 19920410

Last Updated on STN: 19920410

Entered Medline: 19920326

AB alpha-Tocopherol has been studied for its effect on lipid peroxidation and steroidogenesis in the adrenal cortices of rat and rabbit under stress. The vitamin is shown to exert an inhibitory effect on the lipid peroxidation developing under chronic stress. A biphasic pattern of the alpha-tocopherol effect on the steroidogenesis in the adrenal cortex is established: a decrease in the release of the steroids under the acute stress and maintaining of their levels under the chronic stress. A conclusion is drawn about a potential alpha-tocopherol application to correct the adrenal cortex function under stress.

L53 ANSWER 43 OF 231 MEDLINE on STN

AN 90262261 MEDLINE

DN 90262261 PubMed ID: 1693064

TI Amelioration of pulmonary toxicity of bleomycin by free radical scavengers.

AU Fujimoto J; Mori T; Takai S

CS Faculty of Medicine, Osaka University.

SO GAN TO KAGAKU RYOHO [JAPANESE JOURNAL OF CANCER AND CHEMOTHERAPY], (1990 Apr) 17 (4 Pt 2) 946-9. Ref: 19

Journal code: 7810034. ISSN: 0385-0684.

CY Japan

DT Journal; Article; (JOURNAL ARTICLE)

**General Review; (REVIEW)**

(REVIEW, TUTORIAL)

LA Japanese

FS Priority Journals

EM 199006

ED Entered STN: 19900720



Last Updated on STN: 19960129  
Entered Medline: 19900628

L53 ANSWER 44 OF 231 MEDLINE on STN  
AN 90117976 MEDLINE  
DN 90117976 PubMed ID: 2609524  
TI [The effect of tocopherol and ascorbic acid on the development of  
experimental esophageal tumors].  
Vliianie tokoferola i askorbinovoi kisloty na razvitie eksperimental'nykh  
opukholei pishchevoda.  
AU Besspalov V G; Troian D N; Petrov A S; Aleksandrov V A  
SO VOPROSY ONKOLOGII, (1989) 35 (11) 1332-6.  
Journal code: 0413775. ISSN: 0507-3758.  
CY USSR  
DT Journal; Article; (JOURNAL ARTICLE)  
LA Russian  
FS Priority Journals  
EM 199002  
ED Entered STN: 19900328  
Last Updated on STN: 19900328  
Entered Medline: 19900212  
AB The study was concerned with the influence of tocopherol and ascorbic acid  
on induction of tumors by N-nitrososarcosine ethyl ester (NSEE) in rats.  
In the first series of experiments, NSEE was given orally in the daily  
dose of 100 mg/kg body weight during 8 weeks while alpha-tocopherol  
acetate was administered in the dose of 600 mg/kg food during the  
following 32 weeks. In the second series, NSEE was given intragastrically  
in the dose of 50 mg/kg body weight daily during 16 weeks whereas for the  
following 16 weeks, the animals received 20 g/kg food ascorbic acid. The  
rats were sacrificed at 40 (series 1) and 32 weeks (series 2) of the  
experiment. NSEE induced tumors of the esophagus and forestomach in more  
than 90% of cases, mainly papillomas and--less frequently--carcinomas,  
five tumors per rat, on the average. Treatment with tocopherol was  
followed by a 37% decrease in the incidence of esophageal and forestomach  
tumors, an approximately two-fold drop in their multiplicity as well as by  
lowered incidence of carcinomas. Ascorbic acid did not affect tumor  
induction.

L53 ANSWER 45 OF 231 MEDLINE on STN  
AN 92199820 MEDLINE  
DN 92199820 PubMed ID: 2520333  
TI Ascorbic acid in cholesterol metabolism and in detoxification of  
xenobiotic substances: problem of optimum vitamin C intake.  
AU Ginter E  
CS Research Institute of Human Nutrition, Bratislava, Czechoslovakia.  
SO NUTRITION, (1989 Nov-Dec) 5 (6) 369-74. Ref: 58  
Journal code: 8802712. ISSN: 0899-9007.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)  
LA English  
FS Priority Journals  
EM 199204  
ED Entered STN: 19920509  
Last Updated on STN: 19920509  
Entered Medline: 19920428

AB There are extreme contradictions in the question of an optimum intake of vitamin C. The Recommended Dietary Allowances (RDA) in the USA, Great Britain, and many other countries range from 30 to 60mg for an adult man or woman, whereas the proponents of megadoses recommend as much as 18,000mg per day. Critical opinions against both the official RDA and the hypothesis of megadoses are summarized. Ideal RDA should be based on studies with increasing vitamin C doses in which the efficiency of the ascorbate-dependent systems would be correlated with the vitamin C concentration in the target tissues. On the basis of correlations of the hepatic vitamin C levels in guinea pigs with the rate of cholesterol degradation and the activity of microsomal detoxification systems, it is suggested that such intake of ascorbic acid is optimum that ensures a maximum body pool and maximum steady-state levels of vitamin C in the tissues. It is probable that in healthy adults, such a dose ranges from 100 to 200mg and that in stress conditions, it exceeds 200mg per day.

L53 ANSWER 46 OF 231 MEDLINE on STN  
AN 90196877 MEDLINE  
DN 90196877 PubMed ID: 2629602  
TI The antioxidant abnormality in the stress-susceptible pig. Effect of vitamin E supplementation.  
AU Duthie G G; Arthur J R  
CS Rowett Research Institute, Aberdeen, Scotland, United Kingdom.  
SO ANNALS OF THE NEW YORK ACADEMY OF SCIENCES, (1989) 570 322-34.  
Journal code: 7506858. ISSN: 0077-8923.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199004  
ED Entered STN: 19900601  
Last Updated on STN: 19900601  
Entered Medline: 19900416

L53 ANSWER 47 OF 231 MEDLINE on STN  
AN 89061553 MEDLINE  
DN 89061553 PubMed ID: 3058111  
TI Effect of environmental stress on the responses of ascorbic-acid-treated chickens to Escherichia coli challenge infection.  
AU Gross W B  
CS Department of Large Animal Clinical Science, Virginia-Maryland Regional College of Veterinary Medicine, Virginia Polytechnic Institute and State University, Blacksburg 24061.  
SO AVIAN DISEASES, (1988 Jul-Sep) 32 (3) 432-6.  
Journal code: 0370617. ISSN: 0005-2086.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198812  
ED Entered STN: 19900308  
Last Updated on STN: 19900308  
Entered Medline: 19881229

AB As the stressfulness of the environment increased (measured as increasing heterophil/lymphocyte [H/L] ratios), resistance of chickens to Escherichia coli challenge infection increased. At a relatively low level of environmental stress (H/L ratio = 0.33), the incidence of severe lesions

was 22% in chickens fed diets containing 330 mg of ascorbic acid (AA)/kg and 80% in undosed controls. As the level of environmental stress increased, the dose of AA required for maximum reduction of the incidence of severe lesions increased, and the difference in lesion incidence between AA-dosed and undosed chickens decreased. When environmental stress resulted in H/L ratios of 0.53 or more, AA did not ameliorate the severity of infection. At levels of stress characterized by H/L ratios between 0.39 and 0.44, increasing doses of AA resulted in increased susceptibility to *E. coli* until a dose associated with maximum susceptibility was reached. Further increases in the dose of AA resulted in decreased susceptibility until a dose associated with maximum resistance was reached. In chickens fed feed containing 15 mg corticosterone/kg, increasing doses of AA resulted in increasing susceptibility to *E. coli*.

L53 ANSWER 48 OF 231 MEDLINE on STN  
 AN 87162603 MEDLINE  
 DN 87162603 PubMed ID: 3556642  
 TI [Effect of alpha-tocopherol acetate on the response of the lysosomal system of neutrophil leukocytes during exposure to immobilization stress]. Vliianie al'fa-tokoferola atsetata na reaktsiiu lizosomal'nogo apparata neitrofil'nykh leukotsitov pri deistvii immobilizatsionnogo stressa.  
 AU Agafonova N A; Lunina N V  
 SO FIZIOLOGICHESKII ZHURNAL, (1987 Jan-Feb) 33 (1) 57-63.  
 Journal code: 7806822. ISSN: 0201-8489.  
 CY USSR  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA Russian  
 FS Priority Journals  
 EM 198705  
 ED Entered STN: 19900303  
 Last Updated on STN: 19900303  
 Entered Medline: 19870501

L53 ANSWER 49 OF 231 MEDLINE on STN  
 AN 87239219 MEDLINE  
 DN 87239219 PubMed ID: 3296821  
 TI Chediak-Higashi syndrome.  
 AU Barak Y; Nir E  
 SO AMERICAN JOURNAL OF PEDIATRIC HEMATOLOGY/ONCOLOGY, (1987 Spring) 9 (1) 42-55. Ref: 82  
 Journal code: 7908071. ISSN: 0192-8562.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**  
 LA English  
 FS Priority Journals  
 EM 198706  
 ED Entered STN: 19900305  
 Last Updated on STN: 19900305  
 Entered Medline: 19870626  
 AB The use of cytochemical, electron microscopic, immunofluorescent, and tissue culture techniques has led to important advances in our understanding of the mechanisms underlying the pathogenesis of the Chediak-Higashi syndrome (CHS). This rare and fatal autosomal recessive disorder is clinically characterized by partial albinism, frequent pyogenic infections, and an accelerated lymphohistiocytic phase. The

pathological hallmark of CHS is the presence in all white blood cells of massive lysosomal inclusions, which are formed through a combined process of fusion, cytoplasmic injury, and phagocytosis. The abnormal inclusions exhibit both azurophilic and specific granular markers, and are probably responsible for most of the impaired leukocyte and other cell functions in CHS patients. In addition, a selective profound natural killer (NK) cell function and platelet storage pool deficiencies have been described in these patients. Impaired microtubule assembly and functions, mediated by abnormal intracellular cyclic nucleotide levels, which could be corrected by treatment with ascorbic acid, were suggested to be the pathophysiological basis for CHS abnormalities. However, some recent studies have questioned this cytoskeletal model, which is suggested to be rather a secondary manifestation of CHS.

L53 ANSWER 50 OF 231 MEDLINE on STN  
 AN 86230212 MEDLINE  
 DN 86230212 PubMed ID: 3520253  
 TI An antithrombotic role for nutritional antioxidants: implications for tumor metastasis and other pathologies.  
 AU McCarty M F  
 SO MEDICAL HYPOTHESES, (1986 Apr) 19 (4) 345-57. Ref: 93  
 Journal code: 7505668. ISSN: 0306-9877.  
 CY ENGLAND: United Kingdom  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**  
 LA English  
 FS Priority Journals  
 EM 198607  
 ED Entered STN: 19900321  
 Last Updated on STN: 19900321  
 Entered Medline: 19860707  
 AB Nutritional antioxidants support prostacyclin synthesis by preventing lipid hydroperoxide-mediated inhibition of prostacyclin synthetase. Recent preliminary clinical studies indicate that supplementary antioxidants exert antithrombotic effects in vivo that are most likely attributable to enhanced prostacyclin production. Optimal antioxidant nutrition may thus have preventive and therapeutic value for disorders in which inappropriate platelet aggregation plays an etiologic role, including MI, stroke, atherogenesis, pre-eclampsia, and the vascular complications of diabetes. In light of evidence that platelet aggregation encourages the implantation of hematogenous tumor metastases, supplemental antioxidants should also impede tumor dissemination--an effect which will be complemented by the immunostimulant actions of these nutrients. By exerting anticarcinogenic, immunostimulant and anti-metastatic effects, nutritional antioxidants should act to inhibit neoplasia at each stage of its development.

L53 ANSWER 51 OF 231 MEDLINE on STN  
 AN 85073997 MEDLINE  
 DN 85073997 PubMed ID: 3917362  
 TI Micronutrient requirements of cancer patients.  
 AU Hoffman F A  
 SO CANCER, (1985 Jan 1) 55 (1 Suppl) 295-300.  
 Journal code: 0374236. ISSN: 0008-543X.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)

LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 EM 198502  
 ED Entered STN: 19900320  
 Last Updated on STN: 19970203  
 Entered Medline: 19850205

AB Several major factors may influence the micronutrient requirements of the patient with cancer. These factors include the metabolic state of the malignancy and its effects on host metabolism, the catabolic effects of antineoplastic therapy, and other physiologic stresses commonly associated with the treatment of cancer, i.e., surgery, fever and infection. Although the nutritional importance of vitamins, minerals and trace elements is recognized, the optimal daily dose that will preserve lean body mass without enhancing tumor growth, is not known. Recommended Dietary Allowances (RDAs), where established, are based on populations with nonmalignant diseases. However, supplementation with vitamins, minerals, and certain trace elements is recommended for the cancer patient who requires prolonged parenteral support, since clinically relevant deficiency states have been described. The effect of malignancy on the metabolism of several of these micronutrients (iron, ascorbic acid, alpha tocopherol, selenium, zinc, copper) is discussed.

L53 ANSWER 52 OF 231 MEDLINE on STN  
 AN 86000919 MEDLINE  
 DN 86000919 PubMed ID: 4041586  
 TI [Effect of alpha-tocopheryl acetate on blood biochemical parameters in albino rats as affected by acoustic stress].  
 Vliianie al'fa-tokoferilatsetata na nekotorye biokhimicheskie parametry krovi belykh krys v usloviakh akusticheskogo stressa.  
 AU Melkonian M M; Mkhitarian V G  
 SO BIULLETEN EKSPERIMENTALNOI BIOLOGII I MEDITSINY, (1985 Sep) 100 (9) 270-2.  
 Journal code: 0370627. ISSN: 0365-9615.  
 CY USSR  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA Russian  
 FS Priority Journals  
 EM 198511  
 ED Entered STN: 19900321  
 Last Updated on STN: 19900321  
 Entered Medline: 19851119

AB Experiments on random-bred white male rats have demonstrated the activation of induced lipid peroxidation in red cell membranes, elevation on the basal level of plasma lipid peroxides, a decrease in the content of alpha-tocopherol in plasma and red blood cell membranes, considerable shifts in the content of esterified and free cholesterol in plasma and red blood cell membranes under prolonged acoustic stress (91 dB). Administration of alpha-tocopheryl acetate in a dose of 1 mg/kg exerted a beneficial effect on the test parameters under prolonged acoustic stress.

L53 ANSWER 53 OF 231 MEDLINE on STN  
 AN 87059584 MEDLINE  
 DN 87059584 PubMed ID: 2946794  
 TI The effect of vitamin E and inderal on cardiac lesions induced by adrenergic-mediated stresses.  
 AU Ayobe M H; Sabh A R; Malak; Saleh A M; Abdel Tawab S  
 SO JOURNAL OF THE EGYPTIAN PUBLIC HEALTH ASSOCIATION, (1985) 60 (3-4) 129-49.  
 Journal code: 7505602. ISSN: 0013-2446.

CY Egypt  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals; Space Life Sciences  
EM 198701  
ED Entered STN: 19900302  
Last Updated on STN: 20000303  
Entered Medline: 19870112

L53 ANSWER 54 OF 231 MEDLINE on STN  
AN 85236037 MEDLINE  
DN 85236037 PubMed ID: 3891898  
TI Vitamin C and chiropractic.  
AU Dryburgh D R  
SO JOURNAL OF MANIPULATIVE AND PHYSIOLOGICAL THERAPEUTICS, (1985 Jun) 8 (2)  
95-103. Ref: 104  
Journal code: 7807107. ISSN: 0161-4754.  
Report No.: PIP-036487; POP-00159528.

CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
LA English  
FS Priority Journals; Population  
EM 198508  
ED Entered STN: 19900320  
Last Updated on STN: 20021101  
Entered Medline: 19850805

AB A review of the literature relating to possible clinical implications of ascorbic acid (AA) supplementation was conducted. Factors requiring a higher AA intake include smoking, alcohol ingestion, stress, diabetes mellitus, pregnancy, and certain drugs, including oral contraceptives, some antibiotics, acetylsalicylate and anti-inflammatory medications. AA has been found to significantly increase wound healing, reduce the inflammatory response, lessen respiratory distress, enhance immune function and serve to benefit many common conditions including osteoarthritis. It is concluded that vitamin C supplementation could be utilized for many conditions seen by chiropractors.

L53 ANSWER 55 OF 231 MEDLINE on STN  
AN 83272811 MEDLINE  
DN 83272811 PubMed ID: 6348694  
TI [Role of vitamin E in adaptation and stress processes in premature infants].  
Rol' vitamina E v protsessakh adaptatsii i stressa u nedonoshennykh detei.  
AU Aripova A A  
SO PEDIATRIIA, (1983 May) (5) 70-2. Ref: 49  
Journal code: 0405563. ISSN: 0031-403X.  
CY USSR  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
LA Russian  
FS Priority Journals  
EM 198309  
ED Entered STN: 19900319  
Last Updated on STN: 20000303  
Entered Medline: 19830923

L53 ANSWER 56 OF 231 MEDLINE on STN  
AN 83069686 MEDLINE  
DN 83069686 PubMed ID: 6755919  
TI [Current views on tumor treatment with large doses of vitamin C].  
Wspolczesne poglady na leczenie nowotworow duzymi dawkami witaminy C.  
AU Plominski P; Stepka K  
SO WIADOMOSCI LEKARSKIE, (1982 Sep 1) 35 (14) 889-93. Ref: 42  
Journal code: 9705467. ISSN: 0043-5147.  
CY Poland  
DT Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**  
LA Polish  
FS Priority Journals  
EM 198301  
ED Entered STN: 19900317  
Last Updated on STN: 19900317  
Entered Medline: 19830119

L53 ANSWER 57 OF 231 MEDLINE on STN  
AN 82185178 MEDLINE  
DN 82185178 PubMed ID: 6176385  
TI Current concepts in iron metabolism.  
AU Aisen P  
SO CLINICS IN HAEMATOLOGY, (1982 Jun) 11 (2) 241-57. Ref: 89  
Journal code: 0331547. ISSN: 0308-2261.  
CY ENGLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**  
LA English  
FS Priority Journals  
EM 198207  
ED Entered STN: 19900317  
Last Updated on STN: 19970203  
Entered Medline: 19820719

L53 ANSWER 58 OF 231 MEDLINE on STN  
AN 83152824 MEDLINE  
DN 83152824 PubMed ID: 6925966  
TI Ascorbate (vit C) utilisation in humans when subjected to moderate/heavy  
physiological stress.  
AU Mowle A F  
SO AUSTRALASIAN NURSES JOURNAL, (1982 Oct) 11 (9) 13-6.  
Journal code: 0367666. ISSN: 0301-018X.  
CY Australia  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Nursing Journals  
EM 198304  
ED Entered STN: 19900318  
Last Updated on STN: 19900318  
Entered Medline: 19830407

L53 ANSWER 59 OF 231 MEDLINE on STN  
AN 82103335 MEDLINE  
DN 82103335 PubMed ID: 7321921  
TI Vitamin C, titrating to bowel tolerance, anascorbemia, and acute induced  
scurvy.

AU Cathcart R F  
 SO MEDICAL HYPOTHESES, (1981 Nov) 7 (11) 1359-76.  
 Journal code: 7505668. ISSN: 0306-9877.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 198203  
 ED Entered STN: 19900317  
 Last Updated on STN: 19980206  
 Entered Medline: 19820322

AB A method of utilizing vitamin C in amounts just short of the doses which produce diarrhea is described (TITRATING TO BOWEL TOLERANCE). The amount of oral ascorbic acid tolerated by a patient without producing diarrhea increase somewhat proportionately to the stress or toxicity of his disease. Bowel tolerance doses of ascorbic acid ameliorate the acute symptoms of many diseases. Lesser doses often have little effect on acute symptoms but assist the body in handling the stress of disease and may reduce the morbidity of the disease. However, if doses of ascorbate are not provided to satisfy this potential draw on the nutrient, first local tissues involved in the disease, then the blood, and then the body in general becomes deplete of ascorbate (ANASCORBEMIA and ACUTE INDUCED SCURVY). The patient is thereby put at risk for complications of metabolic processes known to be dependent upon ascorbate.

L53 ANSWER 60 OF 231 MEDLINE on STN  
 AN 81156717 MEDLINE  
 DN 81156717 PubMed ID: 7010962  
 TI Anti-inflammatory, immunologic and carcinostatic attributes of selenium in experimental animals.  
 AU Spallholz J E  
 SO ADVANCES IN EXPERIMENTAL MEDICINE AND BIOLOGY, (1981) 135 43-62. Ref: 49  
 Journal code: 0121103. ISSN: 0065-2598.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**  
 LA English  
 FS Priority Journals  
 EM 198105  
 ED Entered STN: 19900316  
 Last Updated on STN: 19900316  
 Entered Medline: 19810528

L53 ANSWER 61 OF 231 MEDLINE on STN  
 AN 81232185 MEDLINE  
 DN 81232185 PubMed ID: 6910415  
 TI To run or not to run - that is the question and reply: ascorbate (Vit. C) utilisation and stressful physical exertion.  
 AU Mowle A F  
 SO AUSTRALASIAN NURSES JOURNAL, (1981 Jan-Feb) 10 (2) 29-30.  
 Journal code: 0367666. ISSN: 0301-018X.  
 CY Australia  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Nursing Journals  
 EM 198108  
 ED Entered STN: 19900316



Last Updated on STN: 19900316  
Entered Medline: 19810820

L53 ANSWER 62 OF 231 MEDLINE on STN  
AN 81011232 MEDLINE  
DN 81011232 PubMed ID: 6997665  
TI Modulation of the effects of tumor therapeutic agents by vitamin C.  
AU Prasad K N  
SO LIFE SCIENCES, (1980 Jul 28) 27 (4) 275-80. Ref: 32  
Journal code: 0375521. ISSN: 0024-3205.  
CY ENGLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**  
LA English  
FS Priority Journals  
EM 198011  
ED Entered STN: 19900316  
Last Updated on STN: 19970203  
Entered Medline: 19801125

L53 ANSWER 63 OF 231 MEDLINE on STN  
AN 80234777 MEDLINE  
DN 80234777 PubMed ID: 7393920  
TI Vitamin E increases the growth inhibitory and differentiating effects of tumor therapeutic agents on neuroblastoma and glioma cells in culture.  
AU Prasad K N; Edwards-Prasad J; Ramanujam S; Sakamoto A  
SO PROCEEDINGS OF THE SOCIETY FOR EXPERIMENTAL BIOLOGY AND MEDICINE, (1980 Jun) 164 (2) 158-63.  
Journal code: 7505892. ISSN: 0037-9727.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198009  
ED Entered STN: 19900315  
Last Updated on STN: 19900315  
Entered Medline: 19800926

L53 ANSWER 64 OF 231 MEDLINE on STN  
AN 79148055 MEDLINE  
DN 79148055 PubMed ID: 428309  
TI [Regulating effect of alpha-tocopherol on the conductivity of bilayer phospholipid membranes constructed from brain and liver phospholipids of stressed rats].  
Reguliruiushchee deistvie alpha-tokoferola na provodimost' bisloinykh fosfolipidnykh membran, postroennykh iz fosfolipidov mozga i pecheni krys pri stressovykh sostoianiiakh organizma.  
AU Agadzhyanov M I; Badzhinian S A; Karagezian K G; Mkhitarian V G  
SO DOKLADY AKADEMII NAUK SSSR, (1979) 244 (6) 1496-9.  
Journal code: 7505465. ISSN: 0002-3264.  
CY USSR  
DT Journal; Article; (JOURNAL ARTICLE)  
LA Russian  
FS Priority Journals  
EM 197906  
ED Entered STN: 19900315  
Last Updated on STN: 19900315

Entered Medline: 19790611

L53 ANSWER 65 OF 231 MEDLINE on STN  
AN 80037790 MEDLINE  
DN 80037790 PubMed ID: 386616  
TI [Drug preparations of sea buckthorn (a review of the literature)].  
Lekarstvennye preparaty oblepikhi (obzor literatury).  
AU Pashchuk A Iu; Kostrikova E V; Shraiber M S  
SO VRACHEBNOE DELO, (1979 Sep) (9) 3-7. Ref: 53  
Journal code: 0413607. ISSN: 0049-6804.  
CY USSR  
DT Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**  
LA Russian  
FS Priority Journals  
EM 197912  
ED Entered STN: 19900315  
Last Updated on STN: 19900315  
Entered Medline: 19791220

L53 ANSWER 66 OF 231 MEDLINE on STN  
AN 79069258 MEDLINE  
DN 79069258 PubMed ID: 722347  
TI Ascorbic acid and stress ulcer in the rat.  
AU Glavin G B; Pare W P; Vincent G P Jr  
SO JOURNAL OF NUTRITION, (1978 Dec) 108 (12) 1969-75.  
Journal code: 0404243. ISSN: 0022-3166.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 197902  
ED Entered STN: 19900314  
Last Updated on STN: 19900314  
Entered Medline: 19790221  
AB Rats were orally administered ascorbic acid at a dose of 30 g/liter during either total starvation, partial starvation, the activity-stress ulcer procedure, or the restraint-cold procedure. In four experiments, ascorbic acid failed to exert significant protective action against stomach ulcer formation and, in fact, may have potentiated the ulcerogenic process.

L53 ANSWER 67 OF 231 MEDLINE on STN  
AN 78239286 MEDLINE  
DN 78239286 PubMed ID: 210053  
TI [Participation of thyrocalcitonin in the development of stress].  
Uchastie tirokal'tsitonina v razviti stresa.  
AU Drzhevetskaia I A; Mishina N F  
SO FIZIOLOGICHESKII ZHURNAL SSSR IMENI I. M. SECHENOVA, (1978 Jun) 64 (6) 864-8.  
Journal code: 0427673. ISSN: 0015-329X.  
CY USSR  
DT Journal; Article; (JOURNAL ARTICLE)  
LA Russian  
FS Priority Journals; Space Life Sciences  
EM 197810  
ED Entered STN: 19900314  
Last Updated on STN: 20000303

Entered Medline: 19781018

AB The immobilization stress in rats entailed raise of calcium content in the plasma followed by a decrease to the hypocalcaemic level. The thyrocalcitonin activity of plasma was undetectable in intact rats, but increased to 5 mU/ml after 3 hrs of stress. Administration of bovine thyrocalcitonin (10 U/100 g) before the immobilization inhibited the lowering of CRF activity of hypothalamic extracts, ACTH content of hypophysis, and ascorbic acid concentration in adrenal glands of the rats under stress, i.e. inhibited the development of stress reaction.

L53 ANSWER 68 OF 231 MEDLINE on STN

AN 79059222 MEDLINE

DN 79059222 PubMed ID: 717181

TI Histamine degradative potential of ascorbic acid: considerations and evaluations.

AU Subramanian N

SO AGENTS AND ACTIONS, (1978 Oct) 8 (5) 484-7.  
Journal code: 0213341. ISSN: 0065-4299.

CY Switzerland

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 197901

ED Entered STN: 19900314  
Last Updated on STN: 19900314  
Entered Medline: 19790124

L53 ANSWER 69 OF 231 MEDLINE on STN

AN 77240313 MEDLINE

DN 77240313 PubMed ID: 883727

TI Acute cobalt and isoproterenol cardiotoxicity in swine: protection by selenium-vitamin E supplementation and potentiation by stress-susceptible phenotype.

AU Van Vleet J F; Rebar A H; Ferrans V J

SO AMERICAN JOURNAL OF VETERINARY RESEARCH, (1977 Jul) 38 (7) 991-1002.  
Journal code: 0375011. ISSN: 0002-9645.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 197709

ED Entered STN: 19900314  
Last Updated on STN: 19970203  
Entered Medline: 19770917

L53 ANSWER 70 OF 231 MEDLINE on STN

AN 77124519 MEDLINE

DN 77124519 PubMed ID: 798150

TI Significance of vitamins in cancer.

AU Basu T K

SO ONCOLOGY, (1976) 33 (4) 183-7. Ref: 57  
Journal code: 0135054. ISSN: 0030-2414.

CY Switzerland

DT Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**

LA English

FS Priority Journals

EM 197704  
ED Entered STN: 19900313  
Last Updated on STN: 19900313  
Entered Medline: 19770430  
AB The relationship of vitamins to cancer is very complex. Three types of interactions are possible: the effect of vitamins on tumor growth, the effect of tumors on vitamin metabolism, and the effect of vitamins on chemical carcinogens and anti-tumor chemotherapeutic agents. The significance of vitamins with particular references to vitamins A,B-complex and C, in cancer has been reviewed.

L53 ANSWER 71 OF 231 MEDLINE on STN  
AN 76055292 MEDLINE  
DN 76055292 PubMed ID: 171775  
TI Newer treatment in dermatology.  
AU Rees R B  
SO SOUTHERN MEDICAL JOURNAL, (1975 Nov) 68 (11) 1395-1400. Ref: 0  
Journal code: 0404522. ISSN: 0038-4348.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 197601  
ED Entered STN: 19900313  
Last Updated on STN: 19900313  
Entered Medline: 19760123  
AB The future of a drug depends upon what it can do in the hands of the practitioner. Medicine is practiced on the basis of probabilities, and treatment must be selected which has the best chance of helping the patient, with the least amount of harm. There are many new drugs available for dermatologic therapy in other developed countries which are not available in this country, due to peculiarities of federal drug regulations.

L53 ANSWER 72 OF 231 MEDLINE on STN  
AN 76210673 MEDLINE  
DN 76210673 PubMed ID: 1227917  
TI [Morphofunctional manifestations of rat adrenal cortical reaction to the administration of sodium bromide under conditions of hypodynamic stress]. Morfofunktsional'nye proiavleniia kory nadpochechnikov krys na vvedenie bromida natriia v usloviakh gipodinamicheskogo stressa.  
AU Kirichek L T; Zholudeva V I  
SO FARMAKOLOGIIA I TOKSIKOLOGIIA, (1975 Nov-Dec) 38 (6) 703-6.  
Journal code: 16920420R. ISSN: 0014-8318.  
Report No.: NASA-76210673.  
CY USSR  
DT Journal; Article; (JOURNAL ARTICLE)  
LA Russian  
FS Priority Journals; Space Life Sciences  
EM 197609  
ED Entered STN: 19900313  
Last Updated on STN: 19900313  
Entered Medline: 19760901  
AB Experiments conducted on rats by employing functional and morphological methods of investigation showed bromine to weaken the function of the adrenal cortex in intact rats, producing changes analogous to those of a

hypodynamic stress (2-hour immobilization on the operating table). A combined preliminary introduction of bromine and immobilization is attended by a less pronounced stress reaction and brings about normalization of the ascorbic acid content in the adrenals with the appearance of well-marked morphological signs pointing to the compensation of the adrenal cortex functions.

L53 ANSWER 73 OF 231 MEDLINE on STN  
AN 76200509 MEDLINE  
DN 76200509 PubMed ID: 1226662  
TI [Therapeutic value of ascorbic acid in the pre- and postoperative periods in complicated ulcer disease].  
Lechebnoe znachenie askorbinovoi kisloty v do- i nosleoperatsionnom periodakh dlia bol'nykh oslozhnennoi iazvennoi bolezni'iu.  
AU Mordvinkina T N  
SO VESTNIK KHIRURGII IMENI I. I. GREKOVA, (1975 Jan) 114 (1) 143-5.  
Journal code: 0411377. ISSN: 0042-4625.  
CY USSR  
DT Journal; Article; (JOURNAL ARTICLE)  
LA Russian  
FS Priority Journals  
EM 197608  
ED Entered STN: 19900313  
Last Updated on STN: 20000303  
Entered Medline: 19760802

L53 ANSWER 74 OF 231 MEDLINE on STN  
AN 73164887 MEDLINE  
DN 73164887 PubMed ID: 4633567  
TI Vitamin C requirements of the vervet monkey (*Cercopithecus aethiops*) under experimental conditions.  
AU de Klerk W A; du Plessis J P; van der Watt J J; de Jager A; Laubscher N F  
SO SOUTH AFRICAN MEDICAL JOURNAL, (1973 Apr 28) 47 (16) 705-8.  
Journal code: 0404520. ISSN: 0038-2469.  
CY South Africa  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 197306  
ED Entered STN: 19900310  
Last Updated on STN: 19970203  
Entered Medline: 19730621

L53 ANSWER 75 OF 231 MEDLINE on STN  
AN 74087870 MEDLINE  
DN 74087870 PubMed ID: 4359507  
TI An introductory note to ginseng.  
AU Li C P; Li R C  
SO AMERICAN JOURNAL OF CHINESE MEDICINE, (1973 Jul) 1 (2) 249-61.  
Journal code: 0354717. ISSN: 0090-2942.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 197403  
ED Entered STN: 19900310  
Last Updated on STN: 19900310

Entered Medline: 19740328

L53 ANSWER 76 OF 231 MEDLINE on STN  
AN 72262631 MEDLINE  
DN 72262631 PubMed ID: 4626561  
TI Effect of vitamin E on the development of stress-produced gastric ulceration in the rat.  
AU Kangas J A; Schmidt K M; Solomon G F  
SO AMERICAN JOURNAL OF CLINICAL NUTRITION, (1972 Sep) 25 (9) 864-6.  
Journal code: 0376027. ISSN: 0002-9165.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 197210  
ED Entered STN: 19900310  
Last Updated on STN: 19900310  
Entered Medline: 19721018

L53 ANSWER 77 OF 231 MEDLINE on STN  
AN 73045558 MEDLINE  
DN 73045558 PubMed ID: 4264070  
TI Vitamin C therapy in geriatric practice.  
AU Riccitelli M L  
SO JOURNAL OF THE AMERICAN GERIATRICS SOCIETY, (1972 Jan) 20 (1) 34-42.  
Journal code: 7503062. ISSN: 0002-8614.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 197301  
ED Entered STN: 19900310  
Last Updated on STN: 19900310  
Entered Medline: 19730130

L53 ANSWER 78 OF 231 MEDLINE on STN  
AN 71285996 MEDLINE  
DN 71285996 PubMed ID: 4328104  
TI Stress and the domestic fowl: a physiological appraisal.  
AU Freeman B M  
SO WORLDS POULTRY SCIENCE JOURNAL, (1971 Jul-Sep) 27 (3) 263-75. Ref: 120  
Journal code: 0033040. ISSN: 0043-9339.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
LA English  
FS Priority Journals  
EM 197111  
ED Entered STN: 19900101  
Last Updated on STN: 19900101  
Entered Medline: 19711109

L53 ANSWER 79 OF 231 MEDLINE on STN  
AN 71028814 MEDLINE  
DN 71028814 PubMed ID: 5529335  
TI Muscular dystrophy in cattle suffering heavy mortalities during transport by sea.

AU Donaldson L E  
SO AUSTRALIAN VETERINARY JOURNAL, (1970 Sep) 46 (9) 405-8.  
Journal code: 0370616. ISSN: 0005-0423.  
CY Australia  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 197012  
ED Entered STN: 19900101  
Last Updated on STN: 19900101  
Entered Medline: 19701228

L53 ANSWER 80 OF 231 MEDLINE on STN  
AN 72009573 MEDLINE  
DN 72009573 PubMed ID: 5520304  
TI Influence of ginseng on the stress mechanism.  
AU Kim C; Kim C C; Kim M S; Hu C Y; Rhe J S  
SO LLOYDIA, (1970 Mar) 33 (1) 43-8.  
Journal code: 0376626. ISSN: 0024-5461.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 197112  
ED Entered STN: 19900310  
Last Updated on STN: 19900310  
Entered Medline: 19711207

L53 ANSWER 81 OF 231 MEDLINE on STN  
AN 70091490 MEDLINE  
DN 70091490 PubMed ID: 5197874  
TI [Effect of vitamin C on the ovaries and adrenal glands in stress states].  
O dzialaniu witaminy C na jajniki i nadnercza w stanach sressowych.  
AU Rokicki W  
SO PATOLOGIA POLSKA, (1969 Oct-Dec) 20 (4) 455-9.  
Journal code: 0404244. ISSN: 0031-3114.  
CY Poland  
DT Journal; Article; (JOURNAL ARTICLE)  
LA Polish  
FS Priority Journals  
EM 197003  
ED Entered STN: 19900101  
Last Updated on STN: 19900101  
Entered Medline: 19700306

L53 ANSWER 82 OF 231 MEDLINE on STN  
AN 70013171 MEDLINE  
DN 70013171 PubMed ID: 5346552  
TI Vitamin E deficiency and fat stress in the dog.  
AU Hayes K C; Nielsen S W; Rousseau J E Jr  
SO JOURNAL OF NUTRITION, (1969 Oct) 99 (2) 196-209.  
Journal code: 0404243. ISSN: 0022-3166.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 196912

ED Entered STN: 19900101  
Last Updated on STN: 19980206  
Entered Medline: 19691205

L53 ANSWER 83 OF 231 MEDLINE on STN  
AN 69209341 MEDLINE  
DN 69209341 PubMed ID: 4182286  
TI [Experimental stress and supply of ascorbic acid].  
Experimenteller Stress und Ascorbinsaurezufuhr.  
AU Piroth M  
SO VERHANDLUNGEN DER DEUTSCHEN GESELLSCHAFT FUR PATHOLOGIE, (1968) 52 478-80.  
Journal code: 7503704. ISSN: 0070-4113.  
CY GERMANY, WEST: Germany, Federal Republic of  
DT Journal; Article; (JOURNAL ARTICLE)  
LA German  
FS Priority Journals  
EM 196908  
ED Entered STN: 19900101  
Last Updated on STN: 19900101  
Entered Medline: 19690803

L53 ANSWER 84 OF 231 MEDLINE on STN  
AN 68127370 MEDLINE  
DN 68127370 PubMed ID: 6080906  
TI Acetyl-p-aminophenol and vitamin C in heat-stressed birds.  
AU Subaschandran D V; Balloun S L  
SO POULTRY SCIENCE, (1967 Sep) 46 (5) 1073-6.  
Journal code: 0401150. ISSN: 0032-5791.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 196804  
ED Entered STN: 19900101  
Last Updated on STN: 19900101  
Entered Medline: 19680406

L53 ANSWER 85 OF 231 MEDLINE on STN  
AN 67085424 MEDLINE  
DN 67085424 PubMed ID: 4289260  
TI Impairment of the pituitary-adrenal response to acute stress in alloxan  
diabetes.  
AU Kraus S D  
SO ACTA ENDOCRINOLOGICA, (1967 Feb) 54 (2) 328-34.  
Journal code: 0370312. ISSN: 0001-5598.  
CY Denmark  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 196703  
ED Entered STN: 19900101  
Last Updated on STN: 19900101  
Entered Medline: 19670328

L53 ANSWER 86 OF 231 MEDLINE on STN  
AN 67056612 MEDLINE  
DN 67056612 PubMed ID: 4288985



TI Pituitary-adrenal function in the absence of vasopressin.  
AU McCann S M; Antunes-Rodrigues J; Nallar R; Valtin H  
SO ENDOCRINOLOGY, (1966 Dec) 79 (6) 1058-64.  
Journal code: 0375040. ISSN: 0013-7227.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 196703  
ED Entered STN: 19900101  
Last Updated on STN: 19900101  
Entered Medline: 19670304

L53 ANSWER 87 OF 231 MEDLINE on STN  
AN 68044003 MEDLINE  
DN 68044003 PubMed ID: 4293594  
TI [Therapy of sarcoidosis].  
TTherapie der Sarkoidose.  
AU Wurm K  
SO ARCHIV FUR KLINISCHE UND EXPERIMENTELLE DERMATOLOGIE, (1966) 227 (1)  
85-98. Ref: 16  
Journal code: 1256765. ISSN: 0300-8614.  
CY GERMANY, WEST: Germany, Federal Republic of  
DT Journal; Article; (JOURNAL ARTICLE)  
**General Review; (REVIEW)**  
LA German  
FS Priority Journals  
EM 196801  
ED Entered STN: 19900101  
Last Updated on STN: 19900101  
Entered Medline: 19680112

L53 ANSWER 88 OF 231 MEDLINE on STN  
AN 66096871 MEDLINE  
DN 66096871 PubMed ID: 5898632  
TI [Tests of some old sedatives and of phenacetin for anti-stress activity].  
Prufung einiger alter Sedativa und des Phenacetins auf antistressorische  
Wirkungen.  
AU Schulz-Baldes J G  
SO ARZNEIMITTEL-FORSCHUNG, (1965 Aug) 15 (8) 835-7.  
Journal code: 0372660. ISSN: 0004-4172.  
CY GERMANY, WEST: Germany, Federal Republic of  
DT Journal; Article; (JOURNAL ARTICLE)  
LA German  
FS Priority Journals  
EM 196605  
ED Entered STN: 19900101  
Last Updated on STN: 19900101  
Entered Medline: 19660522

L53 ANSWER 89 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3  
AN 1996:223831 HCAPLUS  
DN 125:57042  
TI Induction of NAD(P)H:quinone reductase by vitamins A, E and C in Colo205  
colon cancer cells. [Erratum to document cited in CA124:85491]  
AU Wang, Weiqun; Higuchi, Carl M.  
CS Prevention and Control Program, Univ. Hawaii, Honolulu, HI, 96813, USA

SO Cancer Letters (Shannon, Ireland) (1996), 101(2), 265  
CODEN: CALEDQ; ISSN: 0304-3835  
PB Elsevier  
DT Journal  
LA English  
AB The authors correct EC nos. on 2 enzymes. The errors were not reflected in the abstr. or the index entries.

L53 ANSWER 90 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2003:610256 HCAPLUS  
DN 139:128009  
TI Compositions for preventing human cancer and method of preventing human cancer  
IN Nishino, Hoyoku; Jinno, Kenji  
PA Kansai Technology Licensing Organization Co., Ltd., Japan  
SO PCT Int. Appl., 29 pp.  
CODEN: PIXXD2  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----		-----	-----	-----
PI	WO 2003063860	A1	20030807	WO 2002-JP9700	20020920
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRAI JP 2002-22958 A 20020131

AB Compns. contg. vitamin E compds. in addn. to carotenoid compds. It is favorable to take these compds. in such a manner as to have 1 to 100 mg/day of the carotenoid compd.(s) and 10 to 200 mg/day of the vitamin E compd.(s). In case of administering capsules each contg. 10 mg of natural lycopene, 6 mg of natural .beta.-carotene, 3 mg of natural .alpha.-carotene, and 1 mg of other natural carotenoids and .alpha.-tocopherol to patients with cirrhosis for 5 yr, the test group showed an incidence of liver cancer 1/3 times as high as the control group. Namely, it has been proved for the first time that these compns. are significantly efficacious in preventing liver cancer in humans.

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 91 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2003:466680 HCAPLUS  
DN 139:30839  
TI Composition for treatment of stress  
IN Wurtman, Judith J.; Wurtman, Richard J.  
PA Massachusetts Institute of Technology, USA  
SO U.S., 11 pp., Cont.-in-part of U.S. Ser. No. 354,738, abandoned.  
CODEN: USXXAM  
DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6579899	B1	20030617	US 2000-492110	20000127
	WO 2001054681	A2	20010802	WO 2001-US2854	20010129
	WO 2001054681	C1	20020117		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
EP	1253915	A1	20021106	EP 2001-905173	20010129
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
JP	2003521498	T2	20030715	JP 2001-555659	20010129
PRAI	US 1998-93013P	P	19980716		
	US 1999-354738	B2	19990716		
	US 2000-492110	A2	20000127		
	WO 2001-US2854	W	20010129		

AB A method of treating stress in a patient showing stress related symptoms is disclosed, where the method comprises administering to the patient an effective amt. of a serotonergic drug or prodrug. Specific examples of such drugs are described, and include, among others, tryptophan or 5-hydroxytryptophan, or their salts.

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 92 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:33776 HCAPLUS

DN 138:49971

TI Antioxidant vitamins, zinc, and supplement factors for nucleic acid and protein synthesis for reducing surgery stress and promoting wound healing

IN Higashiguchi, Takashi; Kawaguchi, Susumu

PA Sankyo Seiyaku Kogyo Corporation, Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003012554	A2	20030115	JP 2001-192738	20010626
PRAI	JP 2001-192738		20010626		
AB	Vitamins B1, B2 and B6, C, D3, and E, .beta.-carotene, niacin, pantothenic acid, cell growth promoters contg. folic acid, vitamin B12 and/or vitamin A, and nuclear acid and protein supplement factors contg. zinc and iron in liq. preps. or juices are claimed for reducing surgery stress and promoting wound healing.				

L53 ANSWER 93 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:40112 HCAPLUS

DN 138:72301

TI Protein-herb-based food composition offering stress relaxation to mammals  
 IN Fischer, Christa Maria; Weber, Regina Brigitte  
 PA The Procter & Gamble Company, USA  
 SO Eur. Pat. Appl., 8 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1275308	A1	20030115	EP 2001-117090	20010713
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	WO 2003005838	A1	20030123	WO 2002-US22028	20020711
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRAI EP 2001-117090 A 20010713

AB The present invention provides a food compn., preferably for use as a beverage or other liq. food, which delivers a stress-alleviating effect to mammals, esp. humans. The active ingredients of this compn. are protein fractions and herbal exts.

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 94 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:275268 HCAPLUS

DN 139:124

TI Possibility and application of antistress drugs for livestock. 67. Right use of drugs for domestic animals and hygiene. III

AU Ono, Hiroomi

CS Nippon Veterinary Anim. Sci. Univ., Japan

SO Chikusan no Kenkyu (2003), 57(4), 527-532

CODEN: CKNKAJ; ISSN: 0009-3874

PB Yokendo

DT Journal; General Review

LA Japanese

AB A review. Rumen-bypass vitamin D3 (VD3) and activated VD3, vitamin C (VC) stabilizing preps. and stabilized VC, and safety and instructions for use of vitamins were discussed.

L53 ANSWER 95 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:406227 HCAPLUS

DN 139:159294

TI The association of vitamins C and K3 kills cancer cells mainly by autoschizis, a novel form of cell death. Basis for their potential use as coadjuvants in anticancer therapy

AU Verrax, Julien; Cadrobbe, Julie; Delvaux, Marianne; Jamison, James M.; Gilloteaux, Jacques; Summers, Jack L.; Taper, Henryk S.; Buc Calderon,

Pedro  
CS Departement des sciences pharmaceutiques, Nutrition et Toxicologie,  
Metabolisme, Unite de Pharmacocinetique, Universite Catholique de Louvain,  
Brussels, Belg.  
SO European Journal of Medicinal Chemistry (2003), 38(5), 451-457  
CODEN: EJMCA5; ISSN: 0223-5234  
PB Elsevier Science Ltd.  
DT Journal; **General Review**  
LA English  
AB A review. Deficiency of alk. and acid DNase is a hallmark in all  
non-necrotic cancer cells in animals and humans. These enzymes are  
reactivated at early stages of cancer cell death by vitamin C (acid DNase)  
and vitamin K3 (alk. DNase). Moreover, the coadministration of these  
vitamins (in a ratio of 100:1, for C and K3, resp.) produced selective  
cancer cell death. Detailed morphol. studies indicated that cell death is  
produced mainly by autoschizis, a new type of cancer cell death. Several  
mechanisms are involved in such a cell death induced by CK3, they  
included: formation of H2O2 during vitamins redox cycling, oxidative  
stress, DNA fragmentation, no caspase-3 activation, and cell membrane  
injury with progressive loss of organelle-free cytoplasm. Changes in the  
phosphorylation level of some crit. proteins leading to inactivation of  
NF-.kappa.B appear as main intracellular signal transduction pathways.  
The increase knowledge in the mechanisms underlying cancer cells death by  
CK3 may ameliorate the techniques of their in vivo administration. The  
aim is to prep. the introduction of the assocn. of vitamins C and K3 into  
human clinics as a new, non-toxic adjuvant cancer therapy.  
RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 96 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2003:208749 HCAPLUS  
DN 139:300975  
TI The use of antioxidant therapies during chemotherapy  
AU Drisko, Jeanne A.; Chapman, Julia; Hunter, Verda J.  
CS School of Medicine, Department of Obstetrics and Gynecology, University of  
Kansas Medical Center, Kansas City, KS, 66160, USA  
SO Gynecologic Oncology (2003), 88(3), 434-439  
CODEN: GYNOA3; ISSN: 0090-8258  
PB Elsevier Science  
DT Journal; **General Review**  
LA English  
AB A review. Objective. At the present time, many cancer patients combine  
some form of complementary and alternative medicine therapies with their  
conventional therapies. The most common choice of these therapies is the  
use of antioxidants. Results. A review of four common antioxidants is  
undertaken, which includes vitamin E (mixed tocopherols and tocotrienols),  
.beta.-carotene (natural mixed carotenoids), vitamin C (ascorbic acid),  
and vitamin A (retinoic acid). Antioxidants act as electron acceptors as  
well as therapeutic biol. response modifiers. Despite the fact that  
chemotherapy-induced formation of free radicals is well-demonstrated,  
chemotherapy-induced cytotoxicity in general does not seem to depend on  
formation of reactive oxygen species. Conclusions. Currently, evidence  
is growing that antioxidants may provide some benefit when combined with  
certain types of chemotherapy. Because of the potential for pos.  
benefits, a randomized controlled trial evaluating the safety and efficacy  
of adding antioxidants to chemotherapy in newly diagnosed ovarian cancer  
is underway at the University of Kansas Medical Center.

RE.CNT 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 97 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2003:164494 HCAPLUS  
DN 139:110895  
TI Beneficial and adverse effects of chemopreventive agents  
AU Lee, Byung Mu; Park, Kwang-Kyun  
CS College of Pharmacy, Division of Toxicology, Sungkyunkwan University,  
Suwon, 440-746, S. Korea  
SO Mutation Research (2003), 523-524, 265-278  
CODEN: MUREAV; ISSN: 0027-5107  
PB Elsevier Science B.V.  
DT Journal; **General Review**  
LA English  
AB A review. The beneficial and adverse effects of some chemopreventive agents, such as Vitamins A, C, E, beta-carotene, indole-3-carbinol, capsaicin, garlic, and aloe are reviewed. Two large randomized trials with a lung cancer endpoint, the Alpha-Tocopherol, Beta-Carotene (ATBC) Prevention Study and the Beta-Carotene and Retinol Efficacy Trial (CARET), suggested that antioxidants might be harmful in smokers. However, the results of the Linxian study and of the ATBC or the CARET studies were significantly different in this respect, and therefore, the relationship between antioxidant and carcinogenesis remains open to debate. Indole-3-carbinol has cancer promoting activities in the colon, thyroid, pancreas, and liver, whereas capsaicin alters the metab. of chem. carcinogens and may promote carcinogenesis at high doses. Organosulfur compds. and selenium from garlic have no or a little enhancing effect on cancer promotion stage. Information upon chemopreventive mechanisms that inhibit carcinogenesis is imperfect, although the causes and natures of certain human cancers are known. Therefore, definitive preventive guidelines should be carefully offered for various types of tumors, which properly consider ethnic variations, and the efficacies and the safety of chemopreventive agents.

RE.CNT 137 THERE ARE 137 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 98 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2003:657299 HCAPLUS  
DN 139:254596  
TI Clinical models for testing chemopreventative agents in prostate cancer and overview of SELECT: The selenium and vitamin E cancer prevention trial  
AU Klein, Eric A.  
CS Section of Urologic Oncology, Urologic Institute, Cleveland Clinic Foundation, Cleveland, OH, 44195, USA  
SO Recent Results in Cancer Research (2003), 163(Tumor Prevention and Genetics), 212-225  
CODEN: RRCRBU; ISSN: 0080-0015  
PB Springer-Verlag  
DT Journal; **General Review**  
LA English  
AB A review. Target populations for chemoprevention trials should include those at higher than av. risk for the development of prostate cancer as defined by explicit epidemiol. and genetic criteria. Such populations include a "primary prevention" group without histol. or clin. evidence of cancer, and several clin. models of "secondary prevention," including those with clin. evident disease prior to definitive therapy and those at

high risk of recurrence after therapy based on histol. and/or biochem. status. Each risk group and clin. model has potential advantages and disadvantages, and the mechanisms which underlie disease development and progression in each group may be unique. These observations give rise to many potential clin. trials of specific agents. These trials should also include collection of data on potentially confounding influences on disease development and progression. Preclin., epidemiol., and Phase II data suggest that both selenium and vitamin E have potential efficacy in prostate cancer prevention. The experience of the Prostate Cancer Prevention Trial (PCPT) demonstrates the interest and dedication of healthy men to long-term studies of cancer prevention. SELECT, the Selenium and Vitamin E Cancer Prevention Trial, is an intergroup phase III, randomized, double-blind, placebo-controlled, population-based clin. trial designed to test the efficacy of selenium and vitamin E alone and in combination in the prevention of prostate cancer which builds on secondary analyses of large-scale chemoprevention trials for other cancers and the lessons of PCPT.

RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 99 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2003:341557 HCAPLUS  
DN 139:78282  
TI Chemoprevention of prostate cancer  
AU Ward, John F.; Blute, Michael L.  
CS Fellow in Urologic Oncology, Mayo Clinic, Rochester, MN, 55905, USA  
SO Expert Review of Anticancer Therapy (2003), 3(2), 203-214  
CODEN: ERATBJ; ISSN: 1473-7140  
PB Future Drugs Ltd.  
DT Journal; **General Review**  
LA English  
AB A review. Dietary factors and other naturally occurring substances may emerge as potent therapeutic or preventative agents in the battle against prostate cancer. Much of the current support for these agents is epidemiol. based, but new prospective studies are now underway which may support their use in conventional medical practice.

RE.CNT 125 THERE ARE 125 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 100 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2003:471795 HCAPLUS  
DN 139:374785  
TI The effect of vitamin E on stress-induced changes in visual evoked potentials (VEPs) in rats exposed to different experimental stress models  
AU Yargicoglu, Piraye; Yaras, Nazmi; Agar, Aysel; Guemueslue, Saadet; Bilmen, Suereyya; Oezkaya, Guel  
CS Department of Biophysics, Faculty of Medicine, Akdeniz University, Arapsuyu, Turk.  
SO Acta Ophthalmologica Scandinavica (2003), 81(2), 181-187  
CODEN: AOSCFV; ISSN: 1395-3907  
PB Blackwell Munksgaard  
DT Journal  
LA English  
AB The aim of the study was to investigate the effects of vitamin E on stress-induced changes in visual evoked potentials (VEPs) and lipid peroxidn. Eight exptl. groups of 10 rats per group were formed. These consisted of the control group (C); the group treated with vitamin E (E);

groups exposed to cold stress (CS), immobilization stress (IS) and both cold and immobilization stress (CIS), and groups exposed to equiv. stresses and treated with vitamin E (CSE, ISE, CISE). Vitamin E was injected i.m. in a dose of 30 mg/kg/day. Following chronic stress (15 days), plasma corticosterone concns. in all exptl. groups were significantly increased over those in C group. Vitamin E significantly decreased corticosterone levels in all stress groups compared with their resp. control groups. Brain nitrite levels were significantly more elevated in all stress groups than in the C group. Vitamin E reduced retina and brain nitrite levels in all stress and E groups compared with their resp. control groups. Vitamin E decreased glutathione peroxidase (GSH-Px) activity in retina and brain tissues in the CSE group, but increased it in the ISE group compared with their resp. control groups. Lipid peroxidn. was increased in brain and retina tissues in all stress groups as indicated by the significant increase in thiobarbituric acid-reactive substance (TBARS) levels with respect to the C group. Vitamin E produced a significant decrease in brain and retina TBARS levels in all stress groups with respect to their corresponding control groups. The mean latencies of P1, N1, P2, N2 and P3 components were significantly prolonged in all stress groups compared with the C group. Vitamin E returned the VEP latencies in the stress groups to control values. Our findings clearly indicated that vitamin E has the potential to prevent VEP changes caused by stress.

RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 101 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:505982 HCAPLUS

DN 139:159336

TI Vitamin C in alternative cancer treatment: historical background

AU Block, Keith I.; Mead, Mark N.

CS Block Center for Integrative Cancer Care, Evanston, IL, USA

SO Integrative Cancer Therapies (2003), 2(2), 147-154

CODEN: ICTNAY; ISSN: 1534-7354

PB Sage Publications

DT Journal; **General Review**

LA English

AB A review. Ascorbic acid is the single-nutrient supplement most commonly used by cancer patients, although in most cases this takes place without the physician's knowledge or supervision. A comprehensive review of the literature is presented on the impact of ascorbic acid on cancer survival. Findings from 6 uncontrolled studies suggest that ascorbic acid may increase survival, whereas 2 controlled trials have yielded null results. The relative strengths and limitations of these studies are discussed. A turning point occurred with the release of the 2 controlled (null) studies, which influenced many physicians to turn away from nutrition in the care of cancer patients. Controversy about these trials still persists, however, in the alternative cancer community.

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 102 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:18551 HCAPLUS

DN 138:49296

TI Cancer chemoprevention drug targets

AU Krishnan, K.; Campbell, S.; Abdel-Rahman, F.; Whaley, S.; Stone, W. L.

CS Medicine Service, James H. Quillen Veterans Affairs Medical Center and



Division of Hematology-Oncology, Department of Internal Medicine, East Tennessee State University, Johnson City, TN, 37614, USA

SO Current Drug Targets (2003), 4(1), 45-54  
CODEN: CDTUAAU; ISSN: 1389-4501

PB Bentham Science Publishers Ltd.

DT Journal; **General Review**

LA English

AB A review. Cancer chemoprevention is a new approach in the management of cancer. Traditional cytotoxic chemotherapeutic approaches cannot cure most advanced solid malignancies. Chemoprevention can be defined as the use of non-cytotoxic drugs and natural agents to block the progression to invasive cancer. Chemoprevention can either prevent DNA damage that initiates the neoplastic transformation process or reverses the progression of pre-invasive lesions. Epidemiol. observations, exptl. evidence from animal carcinogenesis models, knock-out models, cancer cell lines and clin. trials have shown the efficacy of this approach. Recent advances in our understanding of carcinogenesis have led to the synthesis of new drugs that target specific receptors. Non-steroidal anti-inflammatory drugs target the prostaglandin pathway. The identification of the role of cyclooxygenase-2 in epithelial carcinogenesis led to the synthesis of selective cyclooxygenase-2 inhibitors (Celecoxib). Celecoxib was subsequently approved for the prevention of colon polyps in familial adenomatous polyposis after the completion of a randomized clin. trial. The large chemoprevention clin. trial with the selective estrogen receptor modulator, tamoxifen, showed the benefit of tamoxifen in the prevention of breast cancer in high-risk women. Retinoids and rexinoids target the retinoid receptors and have a role in chemoprevention of aerodigestive, hepatic and cervical neoplasia. Selenium, an inhibitor of the glutathione peroxidase system, is being tested in the chemoprevention of prostate cancer and lung cancer. The different isoforms of vitamin E (tocopherols) may be chemopreventive. Recent evidence indicates that .gamma.-tocopherol may be a more powerful chemopreventive than the .alpha.-tocopherol. The review details the rationale, exptl. and clin. evidence and the drug targets of the chemopreventive agents that are currently in various phases of clin. development.

RE.CNT 145 THERE ARE 145 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 103 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:14030 HCAPLUS

DN 139:127185

TI Chemoprevention of prostate cancer by diet-derived antioxidant agents and hormonal manipulation (review)

AU Pathak, S. K.; Sharma, R. A.; Mellon, J. K.

CS Cancer Biomarkers and Prevention Group, Department of Oncology, University of Leicester, LE2 7LX, UK

SO International Journal of Oncology (2003), 22(1), 5-13  
CODEN: IJONES; ISSN: 1019-6439

PB International Journal of Oncology

DT Journal; **General Review**

LA English

AB A review. Cancer of the prostate is the most commonly diagnosed solid malignancy and the second leading cause of cancer-related death in men living in developed countries. With an ageing population, the no. of men living with early stages of prostate cancer is expected to increase. There is an increasing need to prevent the onset of cancer or delay the

progression of carcinogenesis in this organ. Chemoprevention is the administration of pharmacol. agents to prevent, delay or reverse carcinogenesis. An example is the reversal of high grade intraepithelial neoplasia by hormonal manipulation using anti-estrogens in breast carcinogenesis or anti-androgens in prostate carcinogenesis. Epidemiol. data showing ethnic and geog. variations in the incidence of, and mortality from, prostate cancer have suggested that the consumption of certain dietary factors, particularly anti-oxidants, may be protective. These factors include the vitamins D and E, soy, lycopene and selenium. The administration of 5- $\alpha$ . reductase inhibitors to patients with benign prostatic hyperplasia may also constitute a potentially chemopreventive intervention. The efficacy of chemopreventive agents needs to be investigated in randomized, placebo-controlled trials in suitable cohorts of high-risk individuals. In parallel, reliable assays of potential biomarkers of the efficacy of intervention need to be developed and validated rigorously.

RE.CNT 95 THERE ARE 95 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 104 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:384304 HCAPLUS

DN 140:22438

TI Evolving strategies for prostate cancer chemoprevention trials

AU Lieberman, Ronald

CS Division of Cancer Prevention, National Cancer Institute, Rockville, MD, 20852, USA

SO World Journal of Urology (2003), 21(1), 3-8

CODEN: WJURDJ; ISSN: 0724-4983

PB Springer-Verlag

DT Journal; **General Review**

LA English

AB A review. Prostate cancer chemoprevention (CP) can be defined as the use of natural and synthetic agents that inhibit, reverse or regress pre-cancer and delay progression to invasive cancer. During the past two decades several CP strategies have evolved. The first generation of CP trials tested the efficacy of antioxidants and vitamins including .beta.-carotene, vitamin A, retinol, 13-cis retinoic acid, vitamins E, C and selenium. Although these trials were disappointing, provocative hypotheses were generated for selenium and vitamin E that set the stage for future prostate trials. In the 1990s, the NCI launched a second generation of large CP trials aimed at breast and prostate cancer. One of these trials is the PCPT, testing the efficacy of a 5 alpha-reductase inhibitor, finasteride, to prevent prostate cancer in 18,000 men. Although PCPT is still in progress, the NCI recently launched a second large primary prostate CP trial called SELECT, testing the efficacy of selenium and vitamin E in 32,400 men. The Prostate Cancer Progress Report to the Director of NCI in 1998 challenged the research community to design more efficient CP trials for prostate cancer. In response, the NCI has evolved a third generation of CP trials. This involves pharmacol. driven translational science research including agents and their targets, biomarker endpoints, suitable clin. models for testing agents and efficient trial designs employing high risk cohorts and surrogate endpoints. In summary, a dual strategy for CP is being developed which includes public health measures and a medical intervention approach.

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 105 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:675772 HCAPLUS

DN 137:195546

TI Treatment of HIV and viral diseases, vascular disease and cancer using a COX-2 inhibitor and cystine

IN Kindness, George; Schumm, Brooke, III; Guilford, Timothy F.

PA Probiochem, LLC, USA

SO PCT Int. Appl., 70 pp.

CODEN: PIXXD2

DT Patent

LA English

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002067853 A2		20020906	WO 2002-US2480	20020126
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR			
PRAI US 2000-PV238504		20001006		
US 2000-PV238506		20001006		
US 2000-PV243901		20001027		
US 2000-PV243902		20001027		
US 2000-PV245592		20001117		
US 2001-PV264511		20010126		
US 2001-PV264504		20010126		
US 2001-PV307689		20010725		
US 2001-912703		20010725		
WO 2001-US31328		20011006		
US 2001-997490		20011117		

AB The invention discloses the combination of a selective COX-2 inhibitor and cystine for the treatment of anti-viral diseases, including HIV, immuno-compromised individuals, AIDS and hepatitis C, atherosclerosis and related atherosclerosis vascular disease states, coronary ischemic syndrome, thrombosis, related vascular problems, cancer and to alleviate 5-hydroxy tryptamine- mediated mechanisms by at least relieving inflammatory symptoms, through regulation of cytokine activated responses, including migraine and migraine-like conditions, to ameliorate neurodegenerative diseases aggravated by inflammatory condition and carotidynia. An HMG-CoA reductase inhibitor may be added to enhance the combination. Magnesium sulfate or similar compd. is proposed to be added to enhance the treatment of neurodegenerative conditions.

L53 ANSWER 106 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:315070 HCAPLUS

DN 136:324080

TI Methods and compositions for promoting the maturation of monocytes

IN Hellstrand, Kristoffer; Hermodsson, Svante H.; Gehlsen, Kurt R.

PA Maxim Pharmaceuticals, Inc., USA

SO PCT Int. Appl., 20 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002033050	A2	20020425	WO 2001-US42626	20011010
	WO 2002033050	A3	20020822		
	WO 2002033050	C1	20031120		
	W:	AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	US 2002094323	A1	20020718	US 2001-974410	20011009
	AU 2002030399	A5	20020429	AU 2002-30399	20011010
	EP 1326629	A2	20030716	EP 2001-987794	20011010
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	US 2002182174	A1	20021205	US 2002-160360	20020530
	US 2002182175	A1	20021205	US 2002-160368	20020530
	US 2002182176	A1	20021205	US 2002-160745	20020530
	US 2002182177	A1	20021205	US 2002-161160	20020530
PRAI	US 2000-240299P	P	20001012		
	US 2001-974410	A3	20011009		
	WO 2001-US42626	W	20011010		

AB Disclosed is a method of promoting the maturation of monocytes comprising the administration of a reactive oxygen species (ROS) inhibitor or scavenger and at least one monocyte maturation-promoting agent. A compn. for promoting the maturation of monocytes is likewise disclosed. The pharmaceutical compn. includes a compd. effective to promote the maturation of monocytes and a ROS inhibitor or scavenger combined in a pharmaceutically acceptable carrier.

L53 ANSWER 107 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:71884 HCAPLUS

DN 136:112639

TI Nutraceutical natural product composition for cancer treatment

IN Clayton, Paul Rodney; Rooperai, Harcharan; Dexter, David

PA Forum Bioscience, UK

SO PCT Int. Appl., 15 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002005827	A2	20020124	WO 2001-GB3150	20010718
	WO 2002005827	A3	20020718		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,			

DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI GB 2000-17620 A 20000718  
 GB 2000-23574 A 20000926  
 GB 2000-26600 A 20001031

AB A program of micronutrients designed specifically to modify all the known steps in the cancer sequence comprises administering an effective amt. of one or more flavonoids, one or more lectins, one or more isoflavones, one or more carotenoids, betaine and selenium to a mammal suffering from cancer as a combination therapy in which the components are administered together, concurrently or sequentially.

L53 ANSWER 108 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2002:869587 HCAPLUS  
 DN 137:346169  
 TI Combination and method of treatment of cancer utilizing a COX-2 inhibitor and an HMG-CoA inhibitor and cystine to enhance glutathione  
 IN Kindness, George; Schumm, Brooke; Guilford, F. Timothy  
 PA USA  
 SO U.S. Pat. Appl. Publ., 21 pp., Cont.-in-part of U.S. Pat. Appl. 2002 86,894.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002169195	A1	20021114	US 2002-57511	20020126
	US 2002086894	A1	20020704	US 2001-912703	20010725
	US 6534540	B2	20030318		
	WO 2002028270	A2	20020411	WO 2001-US31328	20011006
	WO 2002028270	A3	20020613		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, US, US, US, US, US, US, UZ, VN, YU, ZA, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
PRAI	US 2001-264511P	P	20010126		
	US 2001-307689P	P	20010725		
	US 2001-912703	A2	20010725		
	WO 2001-US31328	W	20011006		
	US 2000-238504P	P	20001006		
	US 2000-238506P	P	20001006		
	US 2000-243901P	P	20001027		
	US 2000-243902P	P	20001027		
	US 2000-245592P	P	20001117		
	US 2001-263486P	P	20010123		

AB The inventors propose a combination of an HMG-CoA reductase inhibitor (also referred to as "HMG-CoA inhibitor(s)"), and COX-2 inhibitor for the treatment of cancer, esp. prostate cancer, and a method of treatment of cancer by that combination, esp. prostate cancer. The inventors propose a combination of an HMG-CoA reductase inhibitor, COX-2 inhibitor, and

glutathione pathway enhancing and detoxifying compd., particularly cystine, for the treatment of cancer, esp. prostate cancer, and a method of treatment of cancer by that combination, esp. prostate cancer. Also contemplated is the addn. of lipoic acid and compds. to maintain adequate levels of selenium, Vitamin C and Vitamin E. Based on the clin. results of retardation, but not cure of cancer, the combination has the characteristic of sufficiently interfering with replication and apparently restoring the immune system capacity to manage cancer. A patient with stage 4 metastatic prostate cancer was treated with Vioxx and Mevacor.

L53 ANSWER 109 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2002:522424 HCAPLUS  
 DN 137:73248  
 TI Therapeutic modulation of the tumor inflammatory response  
 IN Roussel, Eugene  
 PA USA  
 SO U.S. Pat. Appl. Publ., 12 pp.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002090353	A1	20020711	US 2001-756978	20010109
	WO 2002055024	A2	20020718	WO 2002-US749	20020109
	WO 2002055024	A3	20030227		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
	CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				
	GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				
	LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,				
	PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,				
	US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM,				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,				
	CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,				
	BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1355660	A2	20031029	EP 2002-720778	20020109
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
	IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRAI	US 2001-756978	A	20010109		
	WO 2002-US749	W	20020109		

AB The invention relates to compns., kits, and methods for alleviating cancer (i.e., a tumor) in a human patient. The therapeutic modality effected by the invention involves inducing a type 1 inflammatory response in the tumor tissue, whereby the tumor tissue is diminished or destroyed and the patient develops immune memory that inhibits or prevents recurrence of the tumor.

L53 ANSWER 110 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2002:814178 HCAPLUS  
 DN 137:334031  
 TI Novel stress protein NSP with chaperone activity isolated from chinook salmon, its expression in animal cells under external stress and therapeutical uses thereof  
 IN Park, Jeong Woo; Cho, Wha Ja; Yoon, Won Joon; Chung, Dae Kyun; Lee, Jung Min; Jang, Soo Jin  
 PA RNA Inc., S. Korea  
 SO PCT Int. Appl., 113 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002083725	A1	20021024	WO 2001-KR2139	20011211
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRAI KR 2001-17129 A 20010331

AB The present invention is directed to protein NSP having chaperone activity whose expression level increases in cells of an animal subjected to external stresses, and to a process for producing said protein NSP. Addnl., the present invention is directed to nucleic acid mols. encoding such protein NSP, recombinant vectors comprising said nucleic acid mols., host cells transformed with such recombinant vectors, antibodies against such protein NSP, and pharmaceutical or diagnostic compns. and vaccines contg. said protein NSP, vectors or antibodies for preventing or treating or diagnosing infectious diseases of animals. Further, the present invention is directed to inhibitors of activity or expression of such protein NSP, and to a method for screening said inhibitors. Furthermore, the present invention is directed to a protein array including such protein NSP and a solid support.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 111 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:793442 HCAPLUS

DN 137:289032

TI Zinc ionophores as anti-stress agents

IN Fliss, Henry

PA Can.

SO PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002080943	A1	20021017	WO 2002-CA458	20020404
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	US 2002183300	A1	20021205	US 2002-116535	20020404

EP 1377300 A1 20040107 EP 2002-713971 20020404  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
PRAI US 2001-281490P P 20010404  
WO 2002-CA458 W 20020404  
AB The present invention provides methods comprising one or more zinc  
ionophores for treating or reversing the effects of stress, including  
surgical stress in patients. Test compds. effective in screening for  
ionophore and anti-stress activity include Zn complexes with pyrithione  
and diethyldithiocarbamate.  
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 112 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2002:889935 HCAPLUS  
DN 138:348214  
TI Potential therapeutic application of the association of vitamins C and K3  
in cancer treatment  
AU Buc Calderon, P.; Cadrobby, J.; Marques, C.; Hong-Ngoc, N.; Jamison, J.  
M.; Gilloteaux, J.; Summers, J. L.; Taper, H. S.  
CS Faculte de Medecine, Unite de Pharmaceocinetique, Metabolisme, Nutrition  
et Toxicologie, Universite Catholique de Louvain, Brussels, Belg.  
SO Current Medicinal Chemistry (2002), 9(24), 2271-2285  
CODEN: CMCH7; ISSN: 0929-8673  
PB Bentham Science Publishers  
DT Journal; **General Review**  
LA English  
AB A review. The decision of stressed cells to die or to survive is made by  
integrating signals at different levels through multiple check points.  
However, initiation and continued progression toward cell death by  
apoptosis in cancer cells may be blocked by mutation of the tumor  
suppressor p53 or overexpression of members of the bcl-2 family of  
proteins. The existence of such mechanisms indicates that cancer cells  
lose the controls regulating their cell cycle. Therefore, the activation  
of their programmed cell death appears as a major therapeutic target.  
Oxidative stress can stimulate growth, trigger apoptosis, or cause  
necrosis depending upon the dose and the exposure time of the oxidizing  
agent. A large body of evidence supports the idea that oxidative stress  
induced by redox cycling of vitamins C and K3 in assocn. surpasses cancer  
cellular defense systems and results in cell death. The mol. mechanisms  
underlying such a process are, however, still unknown. Indeed, several  
types of cell death may be produced, namely autoschizis, apoptosis and  
necrosis. Combined vitamin C and K3 administration in vitro and in vivo  
produced tumor growth inhibition and increased the life-span of  
tumor-bearing mice. CK3-treatment selectively potentiated tumor  
chemotherapy, produced sensitization of tumors resistant to some drugs,  
potentiated cancer radiotherapy and caused inhibition of the development  
of cancer metastases without inducing toxicity in the host. We propose  
the assocn. of vitamins C and K3 as an adjuvant cancer therapy which may  
be introduced into human cancer therapy without any change in the  
classical anticancer protocols, and without any supplementary risk for  
patients.  
RE.CNT 90 THERE ARE 90 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 113 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2002:581613 HCAPLUS



DN 138:215228  
TI Preconditioning with millimolar concentrations of vitamin C or N-acetylcysteine protects L6 muscle cells' insulin-stimulated viability and DNA synthesis under oxidative stress  
AU Orzechowski, Arkadiusz; Lokociejewska, Malgorzata; Muras, Patrycja; Hocquette, Jean-Francois  
CS Faculty of Veterinary Medicine, Department of Physiological Sciences, Warsaw Agricultural University, Warsaw, 02-787, Pol.  
SO Life Sciences (2002), 71(15), 1793-1808  
CODEN: LIFSAK; ISSN: 0024-3205  
PB Elsevier Science Inc.  
DT Journal  
LA English  
AB The effect of reactive O/N species (ROS/RNS) (H2O2, superoxide anion radical O2.bul.- and OH radical .bul.rOH--the reaction products of the hypoxanthine/xanthine oxidase system), (NO.bul. from sodium nitroprusside), and peroxynitrite (ONOO- from 3-morpholinosydnonimine) on the mitogenic effect of insulin was studied in rat L6 muscle cells after one day incubation with/without antioxidants. ROS/RNS inhibited insulin-induced mitogenicity (DNA synthesis). Insulin (0.1 .mu.M), however, markedly improved mitogenicity in the muscle cells treated with high concns. (0.1, 0.5, 1 mM) of donors of H2O2, O2.bul.-, .bul.OH, ONOO- and NO.bul.. Cell viability, as assessed by morphol. criteria, was also monitored. Massive apoptosis was induced by 1-mM concns. of donors of H2O2 and ONOO-, while NO.bul. addnl. induced necrotic cell death. These results showed that ROS/RNS provide a good explanation for developing resistance to the growth-promoting activity of insulin in myoblasts under conditions of oxidative or nitrosative stress. Cell viability showed that none of the donors induced cell death when present at <0.5 mM. In order to confirm the deleterious effects of ROS/RNS prior to the subsequent treatment with ROS/RNS plus insulin, 1-day preincubation with selected antioxidants (sodium ascorbate, (0.01, 0.1, 1 mM) or N-acetylcysteine (0.1, 1, 10 mM)) was carried out. At low concns. (micromolar), these antioxidants did not abrogate (and even worsened) the concn.-dependent effects of ROS/RNS. In contrast, pretreatment with millimolar concns. of ascorbate or acetylcysteine maintained an elevated mitogenicity in response to insulin, irresp. of the ROS/RNS donor type used.  
RE.CNT 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 114 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2002:404155 HCAPLUS  
DN 137:214400  
TI Autoschizis: a novel cell death  
AU Jamison, James M.; Gilloteaux, Jacques; Taper, Henryk S.; Calderon, Pedro Buc; Summers, Jack L.  
CS Department of Urology, Summa Health System/Northeastern Ohio Universities College of Medicine, Akron, OH, USA  
SO Biochemical Pharmacology (2002), 63(10), 1773-1783  
CODEN: BCPCA6; ISSN: 0006-2952  
PB Elsevier Science Inc.  
DT Journal; **General Review**  
LA English  
AB A review. Vitamin C (VC) and vitamin K3 (VK3) administered in a VC:VK3 ratio of 100:1 exhibit synergistic antitumor activity and preferentially kill tumor cells by autoschizis, a novel type of necrosis characterized by exaggerated membrane damage and progressive loss of organelle-free

cytoplasm through a series of self-excisions. During this process, the nucleus becomes smaller, cell size decreases one-half to one-third of its original size, and most organelles surround an intact nucleus in a narrow rim of cytoplasm. While the mitochondria are condensed, tumor cell death does not result from ATP depletion. However, vitamin treatment induces a G1/S block, diminishes DNA synthesis, increases H<sub>2</sub>O<sub>2</sub> prodn., and decreases cellular thiol levels. These effects can be prevented by the addn. of catalase to scavenge the H<sub>2</sub>O<sub>2</sub>. There is a concurrent 8- to 10-fold increase in intracellular Ca<sup>2+</sup> levels. Electrophoretic anal. of DNA reveals degrdn. due to the caspase-3-independent reactivation of DNase I and II (DNase I, DNase II). Redox cycling of the vitamins is believed to increase oxidative stress until it surpasses the reducing ability of cellular thiols and induces Ca<sup>2+</sup> release, which triggers activation of Ca<sup>2+</sup>-dependent DNase and leads to degrdn. of DNA. Recent expts. indicate that oral VC:VK3 increases the life-span of tumor-bearing nude mice and significantly reduces the growth rate of solid tumors without any significant toxicity by reactivating DNase I and II and inducing autoschizis. This report discusses the mechanisms of action employed by these vitamins to induce tumor-specific death by autoschizis.

RE.CNT 69 THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 115 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:909631 HCAPLUS

DN 139:52105

TI Possibility and application of antistress drugs for livestock. 63. Right use of drugs for domestic animals and hygiene. III

AU Ono, Hiroomi

CS Nippon Veterinary Animal Sci., Japan

SO Chikusan no Kenkyu (2002), 56(12), 1329-1334

CODEN: CKNKAJ; ISSN: 0009-3874

PB Yokendo

DT Journal; General Review

LA Japanese

AB A review as a part of a continued review on changes in serum corticosterone levels and the ratio of H/L (pseudo-eosinophils/lymphocyte) in chickens taking starvation stress. Summarized tables on vitamin C as an antistress drug for cow, beef cattle, pig, broiler, and hen are shown.

L53 ANSWER 116 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:465295 HCAPLUS

DN 138:11058

TI .alpha.-Tocopheryl succinate epitomizes a compound with a shift in biological activity due to pro-vitamin-to-vitamin conversion

AU Neuzil, Jiri

CS Faculty of Health Sciences, Division of Pathology II, University of Linköping, Linköping, Swed.

SO Biochemical and Biophysical Research Communications (2002), 293(5), 1309-1313

CODEN: BBRCA9; ISSN: 0006-291X

PB Elsevier Science

DT Journal; **General Review**

LA English

AB A review. With the advent of the third millennium, a no. of pathologies have been eradicated or taken under control. However, the incidences, of cancer and atherosclerosis, the two most common causes of death in developed countries, have increased or, in some instances, only stagnated.

Therefore there has been an intensive search for agents effective against such life-threatening conditions. Accordingly, the potential anti-atherogenic activity of vitamin E analogs has been studied extensively. Interestingly, recent reports strongly suggest that certain vitamin E analogs, represented in particular by .alpha.-tocopheryl succinate (.alpha.-TOS), also possess anti-neoplastic activity. In this communication, we review our current understanding of the mol. basis for these double effects of .alpha.-TOS and propose a testable hypothesis, according to which this semi-synthetic analog exerts both anti-atherogenic and anti-neoplastic activities. We propose that the prevalence of each activity depends on the actual form of the vitamin E analog. That is, the conversion of the pro-vitamin E form, .alpha.-TOS, to the corresponding vitamin form, .alpha.-tocopherol, makes this anti-neoplastic agent active against inflammatory diseases like atherosclerosis.

RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 117 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:664047 HCAPLUS

DN 137:272577

TI Possibility and application of antistress drugs for limestocks. 59. Right use of drugs for domestic animals and hygiene. III

AU Ono, Hiroomi

CS Nippon Veterinary Animal Sci. Univ., Japan

SO Chikusan no Kenkyu (2002), 56(8), 899-902

CODEN: CKNKAJ; ISSN: 0009-3874

PB Yokendo

DT Journal; General Review

LA Japanese

AB A review. A part of a continued review on vitamin C as antistress drug for chicken. Effect of heat stress to chicken who were exposed to hot air on their plasma components, metabolites of adrenal gland, body wt. changes, and mortality, and suppressive effect of vitamin C on heat stress are discussed.

L53 ANSWER 118 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:581722 HCAPLUS

DN 137:179215

TI Possibility and application of antistress drugs for livestock. 58. Right use of drugs for domestic animals and hygiene. III

AU Ono, Hiroomi

CS Nippon Veterinary Animal Sci. Univ., Japan

SO Chikusan no Kenkyu (2002), 56(7), 821-824

CODEN: CKNKAJ; ISSN: 0009-3874

PB Yokendo

DT Journal; General Review

LA Japanese

AB A review. Antagonistic effect of vitamin C (VC) on stress in domestic fowls and chickens, alleviating effect of VC on fear due to capture and restriction for a short time, effects of VC on adrenocortical response to capture and restriction for a short time, behavior in the uninitiated circumstances, and tonic immobility in middle-aged chickens, and effect of VC on body wt. at the time of cargo booking of old chickens were discussed.

L53 ANSWER 119 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:542153 HCAPLUS

- DN 137:149583  
TI Possibility and application of antistress drugs for livestock. 57. Right use of drugs for domestic animals and hygiene. III  
AU Ono, Hiroomi  
CS Nippon Veterinary Animal Sci. Univ., Japan  
SO Chikusan no Kenkyu (2002), 56(6), 723-726  
CODEN: CKNKAJ; ISSN: 0009-3874  
PB Yokendo  
DT Journal; General Review  
LA Japanese  
AB A review. Vitamin C (VC) as an antistress drug in young piglets, correlation between body wt. gain of fatted piglets in heat stress and blood VC concn., cellular immune activating action of VC in piglets with VC deficient constitution, and effect of VC supplemented to feed on productivity in piglets after weaning stress were discussed.
- L53 ANSWER 120 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2002:421835 HCAPLUS  
DN 137:27624  
TI Possibility and application of anti-stress drugs for livestock. 56. Right use of drugs for domestic animals and hygiene. III  
AU Ono, Hiroomi  
CS Dep. Veterinary Hygiene, Nippon Veterinary Animal Sci. Univ., Japan  
SO Chikusan no Kenkyu (2002), 56(5), 603-606  
CODEN: CKNKAJ; ISSN: 0009-3874  
PB Yokendo  
DT Journal; General Review  
LA Japanese  
AB A review. Effects of vitamin C on plasma Ig levels, incidence of the disease, and survival rate in calves given and not given beesting were discussed.
- L53 ANSWER 121 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2002:401830 HCAPLUS  
DN 137:139761  
TI Possibility and application of antistress drugs for livestock. 55. Right use of drugs for domestic animals and hygiene. III  
AU Ono, Hiroomi  
CS Department of Veterinary Hygiene, Nippon Veterinary and Animal Science University, Japan  
SO Chikusan no Kenkyu (2002), 56(4), 491-493  
CODEN: CKNKAJ; ISSN: 0009-3874  
PB Yokendo  
DT Journal; General Review  
LA Japanese  
AB A review. Effect of vitamin C on the activities of antistress for chicken, dairy cattle, and pig, effect of vitamin C on enhancement of immunol. functions in weanling piglet, and supply of vitamin C to piglet at initiation of lactation, who has disorder of vitamin C biosynthesis are discussed.
- L53 ANSWER 122 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2002:838964 HCAPLUS  
DN 138:395857  
TI Potentiation of the effect of paclitaxel and carboplatin by antioxidant mixture on human lung cancer H520 cells  
AU Pathak, Ashutosh K.; Singh, Neeta; Khanna, Neeru; Reddy, Vijay G.; Prasad,

Kedar N.; Kochupillai, Vinod  
CS Departments of Medical Oncology, Institute Rotary Cancer Hospital, All  
India Institute of Medical Sciences, New Delhi, India  
SO Journal of the American College of Nutrition (2002), 21(5), 416-421  
CODEN: JONUDL; ISSN: 0731-5724  
PB American College of Nutrition  
DT Journal  
LA English  
AB Objective: Antioxidants have been shown to enhance the effect of certain  
chemotherapeutic agents on tumor cells in culture. However, this effect  
differs depending upon the type of tumor and the drugs. In this study,  
the objective was to see whether pretreatment with antioxidant mixt. could  
enhance the cytotoxic and apoptotic effect of commonly used  
chemotherapeutic agents, paclitaxel and carboplatin for the treatment of  
NSCLC. Methods: Human lung squamous cell carcinoma cell line, H520, was  
treated with antioxidant mixt. (vitamin C, vitamin E and .beta.-carotene),  
paclitaxel and carboplatin, individually and in combination of different  
doses in different sequences. Growth inhibition and induction of  
apoptosis was studied by morphol. changes, MTT assay and flow-cytometric  
anal. Results: The antioxidant mixt. by itself led to 15% apoptosis in  
H520 cells. Paclitaxel treatment 24 h prior to carboplatin caused 54%  
apoptosis, more than that produced by simultaneous treatment with both  
agents (40%). A statistically significant improvement in the degree of  
apoptosis, induced by paclitaxel and carboplatin combination, was seen  
when the cells were pretreated with antioxidant mixt. immediately before  
paclitaxel exposure (70%) or 24 h before paclitaxel exposure (89%).  
Conclusion: The data suggests that the apoptotic effects of paclitaxel and  
carboplatin are enhanced by pretreatment with the antioxidant mixt. Thus,  
the most promising sequence of these agents, which emerged in this study,  
was pretreatment with antioxidant mixt. for 24 h followed by paclitaxel  
treatment for 24 h followed by carboplatin exposure for 24 h.  
RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 123 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2002:913017 HCAPLUS  
DN 139:223342  
TI Chemoprevention of lung cancer: current status and future prospects  
AU Cohen, Victor; Khuri, Fadlo R.  
CS Departments of Bioimmunotherapy and Thoracic/Head and Neck Medical  
Oncology, The University of Texas M.D. Anderson Cancer Center, Houston,  
TX, USA  
SO Cancer and Metastasis Reviews (2002), 21(3-4), 349-362  
CODEN: CMRED4; ISSN: 0167-7659  
PB Kluwer Academic Publishers  
DT Journal; **General Review**  
LA English  
AB A review. Lung cancer is the leading cause of cancer death in the United  
States. The current mainstays of lung cancer therapy are surgery,  
radiation and chemotherapy. These interventions have produced slight  
declines in mortality rates in the last 5 yr; however, it appears unlikely  
that marked improvements will occur in the near future. This grim  
overview argues strongly for new, emerging approaches for controlling this  
disease. Chemoprevention is the use of specific natural or synthetic  
substances with the objective of reversing, suppressing or preventing  
carcinogenic progression to invasive cancer. Whether primary, secondary  
or tertiary settings, prevention has the highest potential to improve the

dismal statistics assocd. with this cancer. Several randomized clin. or translational chemoprevention trials have been conducted. All have so far produced either neutral or harmful primary endpoint results showing that lung cancer was not prevented by .alpha.-tocopherol, .beta.-carotene, retinal, retinyl palmitate, N-acetylcysteine or isotretinoin in smokers. Secondary results supporting treatment with isotretinoin in never- and former-smokers and data from prevention trials involving selenium and vitamin E however, are encouraging and offer a promising direction for future clin. study. Other areas of promise for future lung cancer chemoprevention study include the study of mol. markers of risk and drug activity, mol. targeting study, improved imaging techniques and new drug delivery systems.

RE.CNT 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 124 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2002:913008 HCAPLUS  
DN 139:223338  
TI Micronutrients in cancer chemoprevention  
AU Greenwald, Peter; Milner, John A.; Anderson, Darrell E.; McDonald, Sharon S.  
CS Division of Cancer Prevention, Natl. Cancer Inst., National Institutes of Health, USA  
SO Cancer and Metastasis Reviews (2002), 21(3-4), 217-230  
CODEN: CMRED4; ISSN: 0167-7659  
PB Kluwer Academic Publishers  
DT Journal; **General Review**  
LA English  
AB A review. The selection of micronutrients, defined as essential and non-essential dietary components consumed in minute quantities, for testing in clin. chemoprevention trials is based on the totality of evidence arising from epidemiol., in vitro, animal, and clin. studies. Those micronutrients that surface with chemopreventive potential, in terms of high efficacy and low toxicity, in early-phase clin. studies are then candidates for large-scale, randomized clin. chemoprevention trials with cancer endpoints. Micronutrients currently being examd. in National Cancer Institute (NCI)-sponsored phase I, II, or III chemoprevention trials for prostate, breast, and colon cancers include isoflavones, lycopene, selenized yeast, selenomethionine, selenium, vitamin E, perillyl alc., folic acid, vitamin D, calcium, and curcumin. The response to micronutrients may vary not only in magnitude but also in direction. This variation and response likely depend on individual genetic polymorphisms and/or interactions among dietary components that influence absorption, metab., or site of action. Research priorities include investigation of possible mol. targets for micronutrients and whether genetic and epigenetic events dictate direction and magnitude of the response.

RE.CNT 128 THERE ARE 128 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 125 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2003:281653 HCAPLUS  
DN 139:390382  
TI Chemoprevention of carcinoma prostate. A review  
AU Ansari, M. S.; Gupta, N. P.; Hemal, A. K.  
CS Department of Urology, All India Institute of Medical Sciences, New Delhi, 110029, India  
SO International Urology and Nephrology (2002), 34(2), 207-214

CODEN: IURNAE; ISSN: 0301-1623

PB Kluwer Academic Publishers

DT Journal; **General Review**

LA English

AB A review. Purpose: Chemoprevention of prostate cancer is the administration of agents to prevent, inhibit, or delay progression of prostate cancer. Opportunities exist for testing various types of chemopreventive intervention. Material and methods: The authors reviewed the relevant articles published in the last twenty years and studied the biol. of the prostate cancer. An attempt is made to identify intermediate markers and surrogate endpoint markers. The various interventions and initial clin. trial results are described. End points for evaluation are mainly based on changes in PSA, changes of histol. precursors, or time of onset of clin. disease. Results: Nutritional factors such as reduced fat intake, vitamin A, vitamin E, vitamin C, vitamin D, Lycopene and selenium may have a protective effect against prostate cancer. Conclusion: Numerous studies implicate dietary and nutritional factors in the onset and progression of prostate cancer. Hence, it is possible that bioactive compds. (anti-oxidants) like vitamins. A, C, D, E, minerals like selenium and carotenoids like lycopene can be a part of chemopreventive strategies for prostate cancer. Ongoing studies on nutrition and prostate cancer may bring the required evidence to support what is still only a hypothesis at present. However, abs. recommendation will have to await the results of long term prospective clin. trials.

RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 126 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:913006 HCAPLUS

DN 139:223336

TI Cancer chemoprevention

AU Kucuk, Omer

CS Barbara Ann Karmanos Cancer Institute, Wayne State University, Detroit, MI, USA

SO Cancer and Metastasis Reviews (2002), 21(3-4), 189-197

CODEN: CMRED4; ISSN: 0167-7659

PB Kluwer Academic Publishers

DT Journal; **General Review**

LA English

AB A review. Chemoprevention means prevention of cancer by administering chem. compds. Ideal chemopreventive agents are non-toxic, inexpensive and can be taken orally. A large no. of natural and synthetic compds. have cancer preventive properties in cell culture or animal model studies. With the demonstration of tamoxifen's ability to prevent breast cancer in women, the feasibility of chemoprevention in humans has now been firmly established. The current challenge is to build on this success and identify non-toxic chemopreventive agents. A promising area of research is clin. studies with botanicals, cancer preventive compds. in fruits, vegetables and other plants.

RE.CNT 89 THERE ARE 89 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 127 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:355154 HCAPLUS

DN 137:362230

TI Vitamin E analogs: A new class of multiple action agents with anti-neoplastic and anti-atherogenic activity

AU Neuzil, J.; Kagedal, K.; Andera, L.; Weber, C.; Brunk, U. T.  
CS Division of Pathology II, University Hospital, Linköping, SE-58185, Swed.  
SO Apoptosis (2002), 7(2), 179-187  
CODEN: APOPFN; ISSN: 1360-8185  
PB Kluwer Academic Publishers  
DT Journal; **General Review**  
LA English  
AB A review. The incidence of cancer and atherosclerosis, two most common causes of death in developed countries, has been stagnating or, even, increasing. Drugs effective against such conditions are needed and, in this regard, the potential anti-atherosclerotic activity of vitamin E analogs has been studied extensively. Surprisingly, recent results indicate that these agents may also exert anti-neoplastic effects. Here we review the evidence that particular analogs of vitamin E may act as both anti-atherogenic and anti-cancer agents, and discuss the possible mol. bases for these actions.

RE.CNT 67 THERE ARE 67 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 128 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2003:514120 HCAPLUS  
DN 140:12891  
TI The protection of vitamin E on LTP in hippocampal dentate gyrus of rats under stress  
AU Hong, Yan; Cheng, Yiyong; Ma, Qiang; Wang, Donglan; Li, Shutian  
CS Institute of Health and Environmental Medicine, Academy of Military Medical Sciences, Tianjin, 300050, Peop. Rep. China  
SO Zhongguo Yingyong Shenglixue Zazhi (2002), 18(2), 142-144  
CODEN: ZYSZE2; ISSN: 1000-6834  
PB Zhongguo Yingyong Shenglixue Zazhi Bianjibu  
DT Journal  
LA Chinese  
AB The effects of vitamin E on stress-induced impairment in the hippocampus was studied in rats. Twenty four male Wistar rats were randomly allocated into four groups: control, stress, control+VE, stress+VE. The rat stress model was built by restraining for 6 h/d, 21 d. The long-term potentiation was induced in rat hippocampal dentate gyrus (DG) by high-frequency test stimulation. Compared with control group, the rats suffered from restraint stress showed that the no. of crossing in openfield test and the content of glucocorticoids in plasma were significantly increased, and the changes of amplitude of population spike (PS) were significantly lower. After VE supplementation in stressed rats, the indexes mentioned above were significantly improved. The results suggested that opportune supplementation of vitamin E might improve the brain function under stress.

L53 ANSWER 129 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2002:285235 HCAPLUS  
DN 137:139857  
TI Effect of some health food materials and vitamin C on the stressed rats  
AU Nishikawa, Yoshiyuki  
CS College of Nutrition, Koshien University, Takarazuka, Japan  
SO Koshien Daigaku Kiyo, A: Eiyogakubu-hen (2002), Volume Date 2001, 29, 23-33  
CODEN: KDKAEH; ISSN: 0913-5537  
PB Koshien Daigaku  
DT Journal



LA English

AB The preventive effects for the evolution of gastric ulcers and liver dysfunction on stressed rats induced by water immersion were studied giving some health food materials (Fagopyrum tataricum, honey contained wasp exts., Jew's marrow, bittern, glutathione, taurine, Sesamum lignan and corb shell ext.) and vitamin C to rats. Jew's marrow, bittern, taurine and corb shell ext. had more preventive effect for the evolution of gastric ulcers than any other food materials. For the prevention of liver dysfunction, Jew's marrow or taurine was appreciably effective as shown by the low values of the serum enzyme activities of ALT (alanine amino transferase), AST (aspartic acid amino transferase) and GGT (.gamma.-glutamyl transferase). The results showed that simultaneously supplied health foods of corb shell ext. and vitamin C depress most effectively the occurrence of gastric ulcers under the stressed conditions of rats.

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 130 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:617820 HCAPLUS

DN 135:175361

TI Treatment or prevention of prostate cancer with a COX-2 selective inhibiting drug

IN Waldstreicher, Joanne; Morrison, Briggs W.

PA Merck &amp; Co., Inc., USA

SO PCT Int. Appl., 12 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001060365	A1	20010823	WO 2001-US4655	20010213
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1259237	A1	20021127	EP 2001-910637	20010213
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003522790	T2	20030729	JP 2001-559462	20010213
US 2001041713	A1	20011115	US 2001-784878	20010216
PRAI US 2000-183204P	P	20000217		
WO 2001-US4655	W	20010213		

AB A COX-2 selective inhibiting drug is disclosed as useful in treating or preventing prostate cancer. The compd. is used alone or in combination with other drugs.

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 131 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:564830 HCAPLUS

DN 135:132427  
 TI Treatment or prevention of prostate cancer with a COX-2 selective  
 inhibiting drug  
 IN Waldstreicher, Joanne; Morrison, Briggs W.  
 PA Merck & Co., Inc., USA  
 SO PCT Int. Appl., 11 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001054688	A1	20010802	WO 2001-US2405	20010125
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	EP 1253921	A1	20021106	EP 2001-908690	20010125
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	US 2001047022	A1	20011129	US 2001-771315	20010126
	US 6486204	B2	20021126		
PRAI	US 2000-178722P	P	20000128		
	WO 2001-US2405	W	20010125		

AB A COX-2 selective inhibiting drug is disclosed as useful in treating or preventing prostate cancer. The compd. is used alone or in combination with other drugs.

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 132 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2002:760465 HCAPLUS  
 DN 137:231809  
 TI Anticancer grape beverage  
 IN Zhang, Yongming  
 PA Peop. Rep. China  
 SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 6 pp.  
 CODEN: CNXXEV

DT Patent  
 LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1327823	A	20011226	CN 2000-130724	20001011
PRAI	CN 2000-130724		20001011		
AB	The title beverage contains vesveratrol-contg. grape 60-80, polyphenol, tea pigment, tannin acid, Cordycep polyose, ganoderma polyoses, ginsenoside, etc. 15-30, trace elements and vitamins 1-5%. The product is low in cost.				

L53 ANSWER 133 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2001:564823 HCAPLUS

DN 135:132455  
 TI Composition for treatment of stress  
 IN Wurtman, Judith J.; Wurtman, Richard J.  
 PA Massachusetts Institute of Technology, USA  
 SO PCT Int. Appl., 35 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001054681	A2	20010802	WO 2001-US2854	20010129
	WO 2001054681	C1	20020117		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	US 6579899	B1	20030617	US 2000-492110	20000127
	EP 1253915	A1	20021106	EP 2001-905173	20010129
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	JP 2003521498	T2	20030715	JP 2001-555659	20010129
PRAI	US 2000-492110	A2	20000127		
	US 1998-93013P	P	19980716		
	US 1999-354738	B2	19990716		
	WO 2001-US2854	W	20010129		

AB A method of treating stress in a patient showing stress related symptoms is disclosed, where the method comprises administering to the patient an effective amt. of a serotonergic drug or prodrug. Specific examples of such drugs are described, and include, among others, tryptophan or 5-hydroxytryptophan, or their salts.

L53 ANSWER 134 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2001:480709 HCAPLUS  
 DN 135:51113  
 TI Product and method to reduce stress induced immune suppression  
 IN DeMichele, Stephen J.; McEwen, John W.; Wood, Steven M.  
 PA Abbott Laboratories, USA  
 SO U.S., 25 pp., Cont.-in-part of U.S. 6,130,244.  
 CODEN: USXXAM

DT Patent  
 LA English  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6255341	B1	20010703	US 1999-267557	19990312
	US 6130244	A	20001010	US 1998-28987	19980225
	US 6444700	B1	20020903	US 2001-812107	20010319
PRAI	US 1998-28987	A2	19980225		
	US 1999-267557	A1	19990312		

AB In its broadest aspect, the present invention is directed to the discovery of immunonutritional products that are useful in reducing the immunol.

system suppression that results from stress. The stress may be in the form of phys. exertion, mental exhaustion, disease states and the like. In one embodiment, the invention relates to a base nutritional compn. comprising a structured glyceride component, an antioxidant system (vitamins C and E, .beta.-carotene and Se) and a protein. This nutritional compn. has been shown to be highly effective in reducing immune system down regulation or dysregulation as a result of stress.

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 135 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:241888 HCAPLUS

DN 134:216724

TI Inhibition of cancer metastasis using provitamin C. Reducing intracellular oxidative stress which participates in cancer invasion

AU Nagao, Norio; Liu, Jian Wen; Miwa, Nobuhiko

CS Sch. Bioresour., Hiroshima Prefect. Univ., Japan

SO Kagaku to Seibutsu (2001), 39(3), 151-153

CODEN: KASEAA; ISSN: 0453-073X

PB Gakkai Shuppan Senta

DT Journal; **General Review**

LA Japanese

AB A review with 9 refs., on prevention of tumor metastasis using provitamin C through inhibition of oxidative stress.

L53 ANSWER 136 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:772042 HCAPLUS

DN 136:112291

TI Chemotherapy-induced chromosomal damage in peripheral blood lymphocytes of cancer patients supplemented with antioxidants or placebo

AU Elsendoorn, T. J.; Weijl, N. I.; Mithoe, S.; Zwinderman, A. H.; Van Dam, F.; De Zwart, F. A.; Bates, A. D.; Osanto, S.

CS Department of Clinical Oncology, Leiden University Medical Centre, Leiden, Neth.

SO Mutation Research (2001), 498(1-2), 145-158

CODEN: MUREAV; ISSN: 0027-5107

PB Elsevier Science B.V.

DT Journal

LA English

AB Patients with various types of cancer were treated with cisplatin-based combination chemotherapy. Some received supplementation treatment with a beverage contg. the antioxidants vitamins C and E, plus Se, during chemotherapy. The antioxidant mixt. was administered to investigate whether it could reduce the potential genotoxic and nephrotoxic effect of the chemotherapy. A placebo group received a beverage without Se or antioxidants. Micronuclei (MN) in cytochalasin B-blocked binucleate (BN) peripheral blood lymphocytes (PBLs) and hypoxanthine phosphoribosyltransferase (HPRT) mutants in PBLs were studied before, during and after chemotherapy as a measure for chemotherapy-induced genotoxic effects. Before chemotherapy, the patients' mean frequencies of MN and HPRT mutants did not differ from those in a group of healthy subjects. The mean frequency of MN in patients increased after one cycle of chemotherapy. This frequency was still elevated 2 mo after the completion of chemotherapy (not significantly). There was no significant difference in MN frequency between the antioxidant-treated and placebo group of patients. Chemotherapy-induced frequencies of MN after three cycles of chemotherapy correlated with the cumulative dose of cisplatin

and the cisplatin-mediated loss of renal function. No consistent change in HPRT mutant frequency following chemotherapy was obsd. in the placebo and antioxidant groups of patients. In conclusion, cisplatin combination chemotherapy resulted in a cisplatin-dose-related increase of the frequency of chromosomal damage. Supplementation with antioxidants did not prevent or reduce this effect.

RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 137 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:553425 HCAPLUS

DN 133:144907

TI Brassica extracts or sulforaphane in combination with resveratrol as antitumor agents

IN Raymond, Sidney Matthews

PA Wassen International Limited, UK

SO PCT Int. Appl., 19 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000045829	A1	20000810	WO 2000-GB300	20000202
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
GB 2346325	A1	20000809	GB 1999-2304	19990202
GB 2363571	A1	20020102	GB 2001-18267	20000202
PRAI GB 1999-2304	A	19990202		
WO 2000-GB300	W	20000202		

AB The present invention discloses a compn. suitable for pharmaceutical use which comprises at least one active ingredient from a Brassica ext. or an analog of sulforaphane, and resveratrol or an analog thereof. The compn. is esp. effective for the treatment of testicular tumors.

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 138 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:666594 HCAPLUS

DN 133:251654

TI Agents and methods for promoting production gains in animals

IN Cook, Christian John

PA The Horticulture and Food Research Institute of New Zealand Limited, N. Z.

SO PCT Int. Appl., 59 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 2000054766 A1 20000921 WO 2000-NZ26 20000313  
 W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,  
 CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID,  
 IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,  
 MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG,  
 SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW,  
 AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,  
 DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,  
 CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 NZ 334627 A 20020726 NZ 1999-334627 19990312  
 EP 1169030 A1 20020109 EP 2000-911506 20000313  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO  
 PRAI NZ 1999-334627 A 19990312  
 WO 2000-NZ26 W 20000313  
 AB The invention relates to compns. and methods for promoting prodn. gains in  
 animals, and for enhancing the efficacy of therapeutic agents. The gains  
 are achieved through redn. in stress, including through the use of  
 antistress agents. Compns. comprising therapeutic agents such as  
 anthelmintics, and antistress agents are provided. Thus, stressed sheep  
 receiving metyrapone (5 mg/kg live wt.) at the time of anthelmintic  
 treatment (Ivomec pour on, oral Endex, and injectable levamisole) showed  
 the same efficacy of anthelmintics as did sheep in non-stressed groups;  
 similar growth rates were also obsd.  
 RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 139 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2001:781922 HCAPLUS  
 DN 136:36897  
 TI Method of prophylaxis and correction of transport stress in cattle  
 IN Gorlov, I. F.; Levakhin, V. I.; Ezergail, K. V.  
 PA Volgogradskii Nauchno-Issledovatel'skii Tekhnol. Inst. Myaso-Molochnogo  
 Skotovodstva i Pererabotki Produktsii Zhivotnovodstva, Russia  
 SO Russ., No pp. given  
 CODEN: RUXXE7  
 DT Patent  
 LA Russian  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	RU 2153802	C1	20000810	RU 1999-108918	19990505
PRAI	RU 1999-108918		19990505		
AB	The method involves feeding to animals a supplement contg.: bischofite 78.75-80.85, ascorbic acid (vitamin C) 0.15-0.25, and glucose 19-21 wt.%. This supplement is fed 4-5 days before transport at 210-230 mg/kg live wt./24 h in feed conc. The method ensures stabilization of metab. in transport stress increases and improves meat quality.				

L53 ANSWER 140 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2000:715552 HCAPLUS  
 DN 133:276335  
 TI Fat and oil-encapsulated vitamin C oral preparations as immunostimulants and prevention of stress for domestic animals  
 IN Naruse, Haruki; Sawa, Akira  
 PA Kyokuto International Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000281575	A2	20001010	JP 1999-120307	19990325
PRAI	JP 1999-120307		19990325		

AB Fat and oil encapsulated vitamin C oral prepsns. contg. 5-50 g/animal/day, chromium yeast 1-20 g/animal/day, and sugar honey 10-500 g/animal/day are claimed as immunostimulants and prevention of stress, influenza, and infectious diseases for domestic animals, including cow. Formulation examples were given.

L53 ANSWER 141 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2000:454817 HCAPLUS  
DN 133:344030

TI Prostate cancer prevention trials in the USA

AU Brawley, O. W.; Parnes, H.

CS National Cancer Institute, Bethesda, MD, 20852, USA

SO European Journal of Cancer (2000), 36(10), 1312-1315

CODEN: EJCAEL; ISSN: 0959-8049

PB Elsevier Science Ltd.

DT Journal; **General Review**

LA English

AB A review with 32 refs. There is dramatic international variation in prostate cancer mortality rates. The variation suggests that the disease has an environmental cause and encourages the search for a way to prevent it. Androgenic stimulation over a period of time, perhaps due to a high fat diet, has been suggested as a cause of prostate cancer. The corollary to this hypothesis is that lowering androgenic stimulation over time will prevent prostate cancer. 5-Alpha-reductase inhibition through drugs like finasteride have been shown to decrease androgenic stimulation of the prostate. A clin. trial is underway using finasteride to assess this hypothesis. Epidemiol. and lab. studies also suggest that those with high selenium and vitamin E intake have a lower risk of prostate cancer. Recent serendipitous findings of two randomized clin. trials support this. A study to assess these compds. is currently being designed. Other promising but less developed interventions in the chemoprevention of prostate cancer include vitamin D supplementation and diet modification.

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 142 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2001:154540 HCAPLUS  
DN 135:152058

TI A double-blind, placebo-controlled, double-center study of the effects of an oral multivitamin-mineral combination on stress

AU Schlebusch, L.; Bosch, B. A.; Polglase, G.; Kleinschmidt, I.; Pillay, B. J.; Cassimjee, M. H.

CS Dep. Medically Psychology, Nelson R. Mandella School Medicine, University of Natal, Durban, S. Afr.

SO SAMJ (2000), 90(12), 1216-1223

CODEN: SAMJEJ; ISSN: 0256-9574

PB SA Medical Association Health and Medical Publishing

DT Journal

LA English

AB Objectives: To assess the effects of multivitamin-mineral combination (Berocca Calmag) treatment on stress in a large sample of South Africans. Method: This was a multiple-dose, double-blind, placebo-controlled, double-center study. Patients were drawn from two centers with high stress levels (Durban and Johannesburg) each study recruiting the same no. of patients (150) from 1000 adults with predetd. high stress levels. Dropouts from the study were replaced. Study medication safety was evaluated by recording adverse events. On day 1 (baseline) patients were subjected to an individual in-depth assessment that included a biog. questionnaire, for psychol. scales, and collateral information from close relatives. On day 30 (end of the study period) or at the latest 7 days after the last planned medication intake, the assessment was repeated for purposes of pre- and post-response comparison. Results: Thirty-three patients dropped out and were replaced, leaving 300 patients who completed the study - 151 in group 1 (multivitamin-mineral combination), and 149 in group 2 (placebo). There were no statistically significant differences between the two groups regarding demographics and baseline stress scores at study entry. Both groups improved between baseline and the end of treatment assessed. The degree of improvement was statistically significant and greatest in group 1 for all psychometric instruments, with this beneficial effect increasing over the course of the day. Subgroup analyses for age (18-44 and 45-65 yr), gender and ethnicity showed no general effect on the overall study outcome. Conclusions: The multivitamin-mineral combination tested is well tolerated and can be used as part of a treatment program for stress-related symptoms at the recommended dose.

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 143 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:657253 HCAPLUS

DN 134:146792

TI Reevaluation of ascorbate in cancer treatment: Emerging evidence, open minds and serendipity

AU Padayatty, Sebastian J.; Levine, Mark

CS Molecular and Clinical Nutrition Section, National Institutes of Health, Bethesda, MD, USA

SO Journal of the American College of Nutrition (2000), 19(4), 423-425  
CODEN: JONUDL; ISSN: 0731-5724

PB American College of Nutrition

DT Journal; **General Review**

LA English

AB A review with 26 refs. Some clinicians and alternative therapy practitioners advocate mega dose i.v. and oral ascorbate treatment of cancer. Randomized control studies using oral ascorbate showed no benefit. Recent data show that i.v. but not oral administration of ascorbate can produce millimolar plasma concns., which are toxic to many cancer cell lines. We propose that ascorbate treatment of cancer should be reexamd. by rigorous scientific scrutiny in the light of new evidence.

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 144 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:285559 HCAPLUS

DN 133:134594

TI Selenium and cancer: some nutritional aspects



AU Alaejos, M. S.; Diaz Romero, F. J.; Diaz Romero, C.  
CS Dep. Analytical Chem., Nutrition and Food Sciences, Dep. Phys. Med.  
Pharmacol., University of La Laguna, La Laguna, Tenerife, Spain  
SO Nutrition (New York) (2000), 16(5), 376-383  
CODEN: NUTRER; ISSN: 0899-9007  
PB Elsevier Science Inc.  
DT Journal; **General Review**  
LA English  
AB A review with 30 refs. The level of selenium in cancer patients is lower than that in control subjects. However, low selenium levels in body fluids can be due to the malnutrition obsd. in these patients. There is evidence from epidemiol. studies that high dietary selenium intakes and high selenium status in people are assocd. with lower cancer mortality. However, contradictory information has been found in some prospective studies. The presence of other nutrients in selenium-rich foods can influence the role of the selenium in cancer etiol. Therefore, there are selenium antagonistic elements that inhibit the anticarcinogenic effects of selenium and other antioxidant micronutrients such as ascorbic acid, retinol, .beta.-carotene, .alpha.-tocopherol, and some other elements have a synergistic effect on the prevention of cancer.  
RE.CNT 102 THERE ARE 102 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 145 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2000:785041 HCAPLUS  
DN 135:267536  
TI Melatonin protects against stress-induced gastric lesions by scavenging the hydrocyl radical. [Erratum to document cited in CA133:344934]  
AU Bandyopadhyay, Debashis; Biswas, Kausik; Bandyopadhyay, Uday; Reiter, Russel J.; Banerjee, Ranajit K.  
CS Department of Physiology, Indian Institute of Chemical Biology, Calcutta, 700032, India  
SO Journal of Pineal Research (2000), 29(4), 248  
CODEN: JPRSE9; ISSN: 0742-3098  
PB Munksgaard International Publishers Ltd.  
DT Journal  
LA English  
AB The cor. Table 4 (page 147) is given.  
  
L53 ANSWER 146 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2000:740807 HCAPLUS  
DN 133:344934  
TI Melatonin protects against stress-induced gastric lesions by scavenging the hydroxyl radical  
AU Bandyopadhyay, Debashis; Biswas, Kausik; Bandyopadhyay, Uday; Reiter, Russel J.; Banerjee, Ranajit K.  
CS Department of Physiology, Indian Institute of Chemical Biology, Calcutta, 700032, India  
SO Journal of Pineal Research (2000), 29(3), 143-151  
CODEN: JPRSE9; ISSN: 0742-3098  
PB Munksgaard International Publishers Ltd.  
DT Journal  
LA English  
AB The antiulcer effect of melatonin on gastric lesions caused by restraint-cold stress or by indomethacin (IMN) was studied with the intent of detg. the mechanism of action of the indole. Melatonin dose-dependently prevents both stress and IMN-induced gastric damage with

around 90% inhibition at a dose of 60 mg per kg BW. When compared with already-marketed antiulcer drugs, such as ranitidine and omeprazole, melatonin was found to be more effective than ranitidine but less effective than omeprazole in preventing stress ulcer. When compared with other antioxidants, melatonin was more potent than glutathione and essentially equipotent to .alpha.-tocopherol in blocking stress-induced ulcer. As stress-induced gastric lesions are mainly caused by oxidative damage due to hydroxyl radicals (OH), the effect of melatonin in scavenging the OH generated during stress conditions, as well as in an in vitro model system, was studied. The results indicate that melatonin at the dose of 60 mg per kg BW caused an 88% redn. of endogenous OH during stress. Melatonin was also highly effective in scavenging OH generated in vitro by a Cu<sup>2+</sup>-ascorbate system. In this case, melatonin at 100 .mu.M reduced OH by 80%. Melatonin was also found to be a more potent radical scavenger than benzoate, a known OH scavenger. The results indicate that melatonin prevents stress-induced gastric lesions by scavenging the endogenous OH. As it also protects against IMN-induced gastric damage, it probably also offers gastroprotection by maintaining endogenous prostaglandin levels.

RE.CNT 66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 147 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:94439 HCAPLUS

DN 132:151019

TI The influence of stress on eyeball lipid peroxide formation and vitamin C content

AU Watanabe, Tomiko; Sugimoto, Kayo; Satoh, Kazue; Asano, Kazuhito; Ushio, Fusao; Hisamitsu, Tadashi

CS Dep. Physiol., Sch. Med., Showa Univ., 1-5-8 Hatanodai, Shinagawa-ku, Tokyo, 142-8555, Japan

SO Atarashii Ganka (2000), 17(1), 117-120

CODEN: ATGAEX; ISSN: 0910-1810

PB Medikaru Ai Shuppan

DT Journal

LA Japanese

AB The influence of stress on eyeball lipid peroxide formation and vitamin C content were examd. using BALB/c mice stressed by water-immersion restraint. The stress caused significant increase in lipid peroxide generation, the lipid peroxide levels in eyeballs from donor non-stressed mice (0.569 +/- 0.038 nM) increasing to 0.940 +/- 0.023 nM when the mice were subjected to water-immersion restraint stress for 8 h at 25.degree.. In contrast, water-immersion restraint stress significantly decreased eyeball vitamin C content. These two biochem. parameters were normalized by pre-treatment with ascorbic acid. These results may suggest that water-immersion restraint stress decreases vitamin C content and increases lipid peroxide levels in eyeballs.

L53 ANSWER 148 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:23774 HCAPLUS

DN 134:192742

TI Antioxidant loading reduces oxidative stress induced by high-energy impulse noise (blast) exposure

AU Elsayed, N. M.; Armstrong, K. L.; William, M. T.; Cooper, M. F.

CS Walter Reed Army Institute of Research, Washington, DC, USA

SO Toxicology (2000), 155(1-3), 91-99

CODEN: TXCYAC; ISSN: 0300-483X

PB Elsevier Science Ireland Ltd.  
DT Journal  
LA English

AB Detonation of explosives, firing of large caliber weapons and occupational explosions, professional or accidental, produce high-energy impulse noise (blast) waves characterized by a rapid rise in atm. pressure (overpressure) followed by gradual decay to ambient level. Exposure to blast waves causes injury, predominantly to the hollow organs such as ears and lungs. We have previously reported that blast exposure can induce free radical-mediated oxidative stress in the lung characterized by antioxidant depletion, lipid peroxidn., and Hb oxidn. In this study, we examd. whether pre-loading, adequately fed rats, with pharmacol. doses of antioxidants would reduce the response to blast. Sprague-Dawley rats weighing 300-350 g were loaded with either 800 IU vitamin E (VE), 1000 mg vitamin C (VC) or 25 mg lipoic acid (LA) for 3 consecutive days by gavage before exposure to blast. Both VE, and LA were dissolved in 2 mL corn oil, but VC in 2 mL water. After the 3-day antioxidant loading, the rats were divided into six groups (five rats per group), deeply anesthetized with sodium pentobarbital (60 mg/kg body wt.), then exposed to a low-level blast (62.+-2 kPa peak pressure and 5 ms duration). A matched no. of groups were sham exposed and served as controls. One hour after exposure, all rats were euthanized then blood, and lung tissue was analyzed. We found that antioxidant loading resulted in restored Hb oxygenation, and reduced lipid peroxidn. Lung tissue VE content was elevated after loading but VC did not change possibly due to their different bioavailability and satn. kinetics. These observations, suggest that brief antioxidant loading with pharmacol. doses can reduce blast-induced oxidative stress, and may have occupational and clin. implications.

RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 149 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:550244 HCAPLUS

DN 138:100238

TI Chemoprevention against free radical-mediated hepatocarcinogenesis in rats  
AU Nakae, Dai; Kishida, Hideki; Kusuoka, Osamu; Andoh, Nobuaki; Denda, Ayumi; Konishi, Yoichi

CS Department of Oncological Pathology, Cancer Center, Nara Medical University, Japan

SO Furi Rajikaru no Rinsho (2000), 15, 13-18

CODEN: FRRIFI

PB Nihon Igakukan

DT Journal; **General Review**

LA Japanese

AB A review. Hepatocellular carcinoma (HCC) is a common and lethal human cancer esp. in Eastern countries. Because of its poor prognosis, it is deeply demanded to prevent and control the development of HCC. Free radicals have been indicated to play roles in the mechanisms underlying hepatocarcinogenesis, which leads the possibility of chemoprevention by regulating oxidative (and/or nitros-ative) stress. To explore such a possibility, we have been investigating effects of various chems. on free radical-mediated hepatocarcinogenesis in rats fed a choline-deficient, L-amino acid-defined (CDAA) diet. Chronic feeding of the CDAA diet induces putatively preneoplastic liver lesions and promotes them into HCC under the background induction of fatty liver, hepatocyte death and proliferation, and fibrosis resulting in cirrhosis. Oxidative injuries on nuclear DNA and extranuclear components of hepatocytes contribute to the

induction and growth of preneoplastic lesions, resp., in assocn. with a variety of signaling abnormalities. Vitamin C and E derivs., antioxidants, retinoids, nonsteroidal anti-inflammatory drugs and a nitron-based radical trapper have been shown to chemo-prevent hepatocarcinogenesis in rats fed the CDAA diet by virtue of inhibiting the induction of oxidative sub-hepatocellular injuries, signaling abnormalities and/or background liver lesions. These results give useful basic information that can contribute to develop the practical, mechanism-based strategies for the chemoprevention against human HCC.

L53 ANSWER 150 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:330547 HCAPLUS

DN 130:357181

TI Antitumor drug containing bromelain

IN Reuter, Klaus

PA Germany

SO Ger. Offen., 4 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19750328	A1	19990520	DE 1997-19750328	19971113
PRAI	DE 1997-19750328		19971113		
AB	A combination of bromelain with either (a) ascorbic acid and/or vitamin E or (b) silicic acid and/or acetylsalicylic acid is effective in treatment of tumors, esp. hormone-responsive tumors such as breast cancer and testicular cancer, and is relatively free of side effects. The individual components of the compn. are ineffective. A suitable individual dose contained 1000 mg ascorbic acid, 0.6 g silicic acid, and 1 g bromelain. The recommended daily dose is 2-5 g bromelain.				

L53 ANSWER 151 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:565876 HCAPLUS

DN 131:175093

TI Product and method to reduce stress induced immune suppression

IN Demichele, Stephen J.; Wood, Steven M.; McEwen, John William

PA Abbott Laboratories, USA

SO PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9943220	A1	19990902	WO 1999-US4021	19990224
	W: CA, JP, MX, NO				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6130244	A	20001010	US 1998-28987	19980225
	CA 2321909	AA	19990902	CA 1999-2321909	19990224
	EP 1056359	A1	20001206	EP 1999-936019	19990224
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE				
	JP 2002504501	T2	20020212	JP 2000-533028	19990224
	NO 2000004191	A	20001024	NO 2000-4191	20000822
PRAI	US 1998-28987	A	19980225		

WO 1999-US4021 W 19990224

AB In its broadest aspect, the present invention is directed to the discovery of immunonutritional products that are useful in reducing the immunol. system suppression that results from stress. The stress may be in the form of phys. exertion, mental exhaustion, disease states and the like. In one embodiment, the invention relates to a nutritional compn. comprising a structured glyceride component and an antioxidant system. This nutritional compn. has been shown to be highly effective in reducing immune system down regulation or dysregulation as a result of stress.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 152 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:184095 HCAPLUS

DN 130:209116

TI Compositions containing electrolytes for relief of heat stress

IN Armonti, Fausto; Mitola, Donato; Samson, Jacobus C.

PA All Sun - HSF Company Limited, Ire.

SO PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9911149	A1	19990311	WO 1998-EP5422	19980826
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	AU 9892653	A1	19990322	AU 1998-92653	19980826
	EP 1006815	A1	20000614	EP 1998-945290	19980826
	EP 1006815	B1	20020703		
	R:	AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, MC, PT, IE, SI, FI			
	JP 2001514022	T2	20010911	JP 2000-508265	19980826
	AT 219892	E	20020715	AT 1998-945290	19980826
	ES 2178257	T3	20021216	ES 1998-945290	19980826
	US 2002102313	A1	20020801	US 2002-74847	20020213
PRAI	US 1997-924858	A	19970830		
	WO 1998-EP5422	W	19980826		
	US 2000-486494	B1	20000517		

AB A compn. for the relief of heat stress, particularly for restoration of electrolyte balance due to passive exposure to heat resulting in excessive transpiration/perspiration, without strenuous phys. activity, comprises predetd. levels of selected electrolytes including, Na ion .ltoreq. 250, K ion .gtoreq. 100, Mg ion .gtoreq. 100 parts, and carbohydrates .ltoreq. 2.5 %, as needed for organoleptic purposes only. The compn. can further include Zn .gtoreq. 30, Mn .gtoreq. 10, and Ca 65-400 parts. Furthermore, the compn. can comprise oligoelements, dermoprotective vitamins and antioxidants so as to compensate for the chem. changes which might occur in the skin of a person passively exposed to heat. The compn. is preferably in the form of a powder, solid, water soln., or frozen state.

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD

## ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 153 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:81579 HCAPLUS

DN 130:144186

TI Mineral and vitamin combinations for the treatment of stress and allergies

IN Piper, Edwina Margaret

PA UK

SO PCT Int. Appl., 18 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9903482	A1	19990128	WO 1998-GB2128	19980717
	W: AU, CA, GB, NZ, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9884500	A1	19990210	AU 1998-84500	19980717
	GB 2342045	A1	20000405	GB 2000-878	19980717
	GB 2342045	B2	20020417		
	US 6299886	B1	20011009	US 2000-462990	20000425
PRAI	GB 1997-15203	A	19970719		
	WO 1998-GB2128	W	19980717		

AB Pharmaceutical compn. contg. mineral and vitamin combinations are used for the treatment of stress and allergies. The treatment is by means of nutritional supplements for the adrenal glands, liver and mast cells. The supplements may include potassium, magnesium, Vit B6, Vit B5, Vit C and essential fatty acids. A biol. mechanism linking stress and allergies such as hay fever or other perennial or seasonal respiratory allergies is proposed and the effect of the treatment thereon is discussed. A compn. contained potassium gluconate 408, evening primrose oil 500, vitamin C 530, bioflavonoids 25, magnesium oxide 134, vitamin B6 50, vitamin B5 50, vitamin B1 5, vitamin B2 5, bioavailable zinc 8, bioavailable manganese 2 mg., bioavailable selenium 25, and bioavailable chromium 25 .mu.g. Treatment of patients with the compn. for 4 days eliminated all allergic symptoms.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 154 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:191402 HCAPLUS

DN 130:213663

TI DHEA-containing nutritional supplement

IN Craft, John C.

PA USA

SO U.S., 11 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5883086	A	19990316	US 1997-850850	19970502
PRAI	US 1997-850850		19970502		

AB The present invention relates to a nutritional supplement contg. from 5%

to 2000% each of the RDA of vitamins A, C, D, E and .beta.-carotene, from 5% to 500% of the RDA of the minerals selenium, zinc, magnesium, calcium, iodine and potassium, from 5 to 100 mg dehydroepiandrosterone (DHEA), from 0.1-10 mg trans-ferulic acid, and one or more plant exts. selected from ginseng and garlic. These DHEA-contg. nutritional supplements are useful in the alleviation of an irregular heartbeat as well as the general symptoms of stress.

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 155 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:789591 HCAPLUS

DN 132:32926

TI A method for evaluating the influence of stress on epidermal cells

IN Hosoi, Junichi; Tsuchiya, Toru; Koyama, Junichi

PA Shiseido Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 11341993	A2	19991214	JP 1998-326832	19981117
PRAI	JP 1998-101920		19980331		

AB An in vitro method is developed for evaluating the effect of stress load on epidermal cells, and for screening a substance capable of suppressing skin damage due to the stress load. In this system, epidermal cells are cultured in the presence of glucocorticoid which brings about lowering the function of skin cells, and the resulting drop in the amt. of MHC class II antigen expressed is immunol. measured. The suppressing effect of a test substance on this drop in the amt. of MHC class II antigen expressed is evaluated as a relief for the influence of the stress load on the epidermal cells. Ougon ext. and vitamin C derivs. were found to possess this ability. A skin prepn. contg. such a substance is also claimed.

L53 ANSWER 156 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:764865 HCAPLUS

DN 132:278532

TI Vitamin and mineral supplement use is associated with reduced risk of prostate cancer

AU Kristal, Alan R.; Stanford, Janet L.; Cohen, Jennifer H.; Wicklund, Kristine; Patterson, Ruth E.

CS Cancer Prevention Research Program, Fred Hutchinson Cancer Research Center, Seattle, WA, 98109, USA

SO Cancer Epidemiology, Biomarkers & Prevention (1999), 8(10), 887-892

CODEN: CEBPE4; ISSN: 1055-9965

PB American Association for Cancer Research

DT Journal

LA English

AB This population-based, case-control study in King County, Washington examd. supplement use in 697 incident prostate cancer cases (ages 40-64) identified from the Puget Sound Surveillance, Epidemiol. and End Results program registry and 666 controls recruited from the same overall population using random-digit dialing sampling. Participants reported their frequency of use of three types of multivitamins and single supplements of vitamins A, C, and E, calcium, iron, and zinc over the 2 yr

before diagnosis. Logistic regression analyses controlled for age, race, education, family history of prostate cancer, body mass index, no. of prostate-specific antigen tests in the previous 5 yr, and dietary fat intake. Adjusted odds ratios (95% confidence limits) for the contrast of .gtoreq.7/wk vs. no use were as follows: multivitamins, 0.96 (0.73, 1.26); vitamin A, 0.59 (0.32, 1.06); vitamin C, 0.77 (0.57, 1.04); vitamin E, 0.76 (0.54, 1.08); calcium, 1.04 (0.61, 1.78); iron, 0.50 (0.13, 1.76); and zinc, 0.55 (0.30, 1.00). Odds ratios differed little when cases were stratified by stage of disease at diagnosis or by histopathol. grade. There were significant dose-response effects for zinc and ordered dose-response trends for vitamins C and E. Overall, these results suggest that multivitamin use is not assocd. with prostate cancer risk, but use of individual supplements of zinc, vitamin C, and vitamin E may be protective. Further study is needed to investigate the direct role of these dietary supplements, as well as the role of lifestyle variables assocd. with supplement use, on prostate cancer risk.

RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 157 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:35392 HCAPLUS

DN 133:16760

TI Effects of selenium and vitamin E on vasoactive substances in myocardium of rats under cold stress

AU Jin, Yi; Li, Bao-Yu; Zhang, Hai-Ying; Li, Guang-Sheng

CS Qingdao Medical College of Qingdao University, Qingdao, 266021, Peop. Rep. China

SO Zhongguo Bingli Shengli Zazhi (1999), 15(10), 871-873

CODEN: ZBSZEB; ISSN: 1000-4718

PB Jinan Daxue

DT Journal

LA Chinese

AB To study the effects of selenium (Se) and vitamin E (VE) on vasoactive substances in myocardium of rats under cold stress. Sixty Wistar rats were divided into 6 groups: (1) Se- and VE-deficient I group (Se/VE DG I ); (2) Se supplemented (0.1 mg/kg) group (Se/VE DG I + Se ); (3) VE supplemented (100 mg/kg) group (Se/VE DG I + VE ); (4) Se, VE supplemented group (Se/VE DG I + Se/VE); (5) Se- and VE-deficient grain II group (Se/VE DG II); (6) Stock group (SG). Rats were fed for 70 days and were put in ice water stressed before killed. The contents of endothelin (ET), nitric oxide (NO), noradrenaline (NE), angiotensin-II (Ang-II), activities of monoamine oxidase-A (MAO-A), superoxide dismutase (SOD), glutathione peroxidase (GSH-Px), and content of lipofuscin in myocardial were measured. Contents of ET, Ang-II and NE were obviously increased and contents of NO and activities of MAO-A, SOD, GSH-Px were markedly decreased in the myocardium of Se/VE DG I rats, but above items were improved in differently grade in those rats fed on Se/VE DG I supplemented Se, VE and Se/VE group. Se and/or VE played important role in some vasoactive substances of myocardium in rats fed on Se/VE deficient grain under cold stress.

L53 ANSWER 158 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:704394 HCAPLUS

DN 132:307685

TI Vitamin E enhances the immune functions of young but not old mice under restraint stress

AU Wakikawa, A.; Utsuyama, M.; Wakabayashi, A.; Kitagawa, M.; Hirokawa, K.



CS School of Medicine, Department of Pathology and Immunology, Tokyo Medical  
& Dental University, Tokyo, 113-8519, Japan  
SO Experimental Gerontology (1999), 34(7), 853-862  
CODEN: EXGEAB; ISSN: 0531-5565  
PB Elsevier Science Inc.  
DT Journal  
LA English  
AB Young and old C57BL/6 male mice were given a diet contg. a high dose of  
vitamin E (VE treatment) and its effect on the immune system was examd.  
before and after the exposure to restraint stress. The VE treatment per  
se gave rise to a slight increase of splenic T cells in percentage and a  
significant enhancement of Con A response of spleen cells in young, but  
not in old mice. The VE treatment also resulted in the enhancement of  
prodn. of IL-2 and IFN.gamma. in young, but not in old mice. Restraint  
stress led to thymic involution in both young and old mice. This thymic  
involution was not ameliorated by the VE treatment. Percentage of splenic  
T cells and their mitogenic response decreased just after the stress, but  
soon rebounded over the control level. The VE treatment further enhanced  
the recovery after the stress in young mice, but on the contrary  
suppressed the recovery in old mice. The results in the present study  
suggested that the VE treatment was effective in the prevention of  
immunol. decline of young mice before and after the exposure to the  
stress. On the other hand, such a preventive effect was not obsd. in old  
mice that were already in the depressed state of immunol. functions.  
RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 159 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1999:759883 HCAPLUS  
DN 132:356  
TI Naloxone and vitamin E block stress-induced reduction of locomotor  
activity and elevation of plasma corticosterone  
AU Ainsah, O.; Nabishah, B. M.; Osman, C. B.; Khalid, Bak A. K.  
CS Dep. Psychiatry, Univ. Kebangsaan Malaysia, Kuala Lumpur, 56000, Malay.  
SO Experimental and Clinical Endocrinology & Diabetes (1999), 107(7), 462-467  
CODEN: ECEDFQ; ISSN: 0947-7349  
PB Johann Ambrosius Barth  
DT Journal  
LA English  
AB Normal rats, on being repetitively stressed by being restrained in a tight  
container for 2 h, had higher levels of blood plasma corticosterone  
compared to pre stress values. These rats also reacted to the stress by a  
behavioral response in which there was marked decrease in locomotor  
activity assessed by the open field test (pre stress: 71.3 squares crossed  
vs. post stress: 14.3 squares crossed) by counting the no. of squares  
entered by the rat over 5 min. By the 6th to 7th exposures to the  
repetitive stress, the rats adapted to the stress and had normal plasma  
corticosterone levels and locomotor activity scores comparable to the pre  
stress values. These responses to stress were completely blocked by the  
administration of 0.32 .mu.g/100 g BW of naloxone i.p. at 10 min prior to  
the stress. In rats fed with rat chow supplemented with 90 mg/kg rat chow  
or 150 mg/kg rat chow of vitamin E, there was redn. of the plasma  
corticosterone levels and improvement in the locomotor activity. Stress  
thus caused opioid mediated increase in plasma corticosterone and redn. in  
locomotor activity which could be blocked by naloxone. These stress  
responses probably also involved generation of oxygen free radicals which  
were scavenged by the vitamin E, thus reducing the effects of repetitive

stress on locomotor activity and serum corticosterone levels.

RE.CNT 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 160 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1999:123843 HCAPLUS  
DN 130:279798  
TI PAK2 is cleaved and activated during hyperosmotic shock-induced apoptosis via a caspase-dependent mechanism: evidence for the involvement of oxidative stress  
AU Chan, Wen-Hsiung; Yu, Jau-Song; Yang, Shiao-Der  
CS Department of Life Sciences, National Tsing Hua University, Hsinchu, Taiwan  
SO Journal of Cellular Physiology (1999), 178(3), 397-408  
CODEN: JCLLAX; ISSN: 0021-9541  
PB Wiley-Liss, Inc.  
DT Journal  
LA English  
AB Hyperosmotic shock elicits a stress response in mammalian cells and can lead to apoptotic cell death. In the present study, we report that hyperosmotic shock can induce activation of a 36 kDa kinase detected by an in-gel kinase assay in several cell types, including mouse Balb/c 3T3 fibroblasts, and human Hep 3B and A431 cells. This 36 kDa kinase can be recognized by an antibody against the C-terminal region of a family of p21Cdc42/Rac -activated kinases (PAKs) on immunoblot. Further studies with this antibody and a PAK2-specific antibody against the N-terminal region of PAK2 demonstrate that hyperosmotic shock can induce cleavage of PAK2 to generate a 36 kDa C-terminal catalytic fragment in cells. The cleavage and activation of PAK2 was found to be closely assocd. with both DNA fragmentation and activation of an ICE/CED-3 family cysteine protease termed caspase-3 in hyperosmotically shocked cells. Furthermore, pretreating the cells with two caspase inhibitors (Ac-DEVD-cho and Ac-YVAD-cmk) could inhibit both cleavage/activation of PAK2 and DNA fragmentation induced by hyperosmotic shock. Moreover, all these hyperosmotic shock-induced changes (i.e., activation of caspase-3, cleavage/activation of PAK2, and DNA fragmentation) in cells could be blocked by antioxidants such as ascorbic acid (vitamin C), .alpha.-tocopherol (vitamin E), dithiothreitol, .beta.-mercaptoethanol, and glutathione. Taken together, our results show that PAK2 is cleaved and activated via a caspase-dependent mechanism during hyperosmotic shock-induced apoptosis and suggest the involvement of antioxidant-preventable oxidative stress in inducing this process.

RE.CNT 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 161 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1999:684412 HCAPLUS  
DN 132:151017  
TI Synergism between vitamins E and C: biological implications for future research  
AU Berry, Elliot M.; Dal Maso, Luigino; Franceschi, Silvia  
CS Department of Human Nutrition and Metabolism, Hebrew University-Hadassah Medical School, Jerusalem, Israel  
SO International Journal of Cancer (1999), 83(2), 288  
CODEN: IJCNAW; ISSN: 0020-7136  
PB Wiley-Liss, Inc.  
DT Journal

LA English

AB Current dietary recommendations for vitamin intake ignore possible biol. interactions whereby supplementation with individual anti-oxidants may be ineffective or even, paradoxically, harmful (Omenn et al., 1996). The many anti-oxidants present in the body, which differ by location, function and activity, may be part of a biol. organized system responsible for maintaining the redox potential of tissues in a manner analogous to pH regulation (Berry and Kohen, 1999). Thus, membrane polyunsatd. fatty acids (PUFAs) are protected from oxidn. by a cascade sequence of redox reactions between .beta.-carotene, vitamin E, vitamin C and glutathione (selenium). It has also been suggested that vitamin C is required to maintain sufficient concns. of active vitamin E, but there are not in many examples of the validity of this concept in humans (Harats et al., 1998). Dietary intake data from an Italian case-control study of colorectal cancer (La Vecchia et al., 1997) appear to support such a possible synergism. The study included 1,953 incident patients (44% women) with histol. confirmed colorectal cancer and 4,154 controls (40% women) admitted to hospital for acute non-neoplastic diseases in 6 Italian areas (La Vecchia et al., 1997). Dietary habits were recorded using a validated food-frequency questionnaire. Vitamin C and vitamin E intakes were inversely assocd. with risk for colorectal cancer also after adjustment for mutual confounding effects (Table I). The odds ratio for the highest tertiles of intake for both vitamins C and E (0.55) was, however, significantly lower than would be predicted for the combined effect of the 2 vitamins using either an additive ( $0.93 \pm 0.88 - I = 0.81$ ) or a multiplicative ( $0.93 \times 0.88 = 0.82$ ) model. The beneficial effect of each vitamin was significantly greater in individuals who reported intake of the other vitamin in the highest vs. lowest tertile. In fact, at the lowest tertiles of each vitamin, increasing intakes of the other vitamin did not appear to confer any significant benefit. This may imply threshold vitamin intakes for biol. activity, in this study, of approx. 11.9 mg/day for vitamin E and 103 mg/day for vitamin C. Examples of synergism may be found for other diseases, such as atherosclerosis, and with other dietary combinations for which there may be a biol. rationale, such as B12, folic acid and pyridoxine in the regulation of homocysteine concns. (Woodside et al., 1998). For the time being, our present findings on colorectal cancer suggest that future prospective controlled trials and nutritional recommendations should take into account possible interactions between nutrients as is currently advised concerning intakes of PUFA and vitamin E.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 162 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:660547 HCAPLUS

DN 134:192582

TI Provitamin C. Free radical scavenging and prevention of cell death by a high enrichment of ascorbic acid

AU Hayashi, Saori; Nagao, Norio; Miwa, Nobuhiko

CS Department of Bioresources, Hiroshima University, Japan

SO Roka Yobo Shokuhin no Kaihatsu (1999), 217-234. Editor(s): Yoshikawa, Toshikazu. Publisher: Shi Emu Shi, Tokyo, Japan.

CODEN: 69AHQ6

DT Conference; General Review

LA Japanese

AB A review with 13 refs. on physiol. functions of provitamin C (Asc2P, Asc2P6Plm, VC-IP, Asc2G) in relation to prevention of aging, covering the

antitumor effect, prevention of skin and DNA damage due to UV, etc.

- L53 ANSWER 163 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1999:168568 HCAPLUS  
DN 131:18291  
TI Cancer and vitamins  
AU Miwa, Yoshiyuki; Muto, Yasutoshi  
CS Sugiyama Human Nutrition Research Center, Japan  
SO Eiyo: Hyoka to Chiryo (1999), 16(1), 47-51  
CODEN: EHCHES; ISSN: 0915-759X  
PB Medikaru Rebyusha  
DT Journal; **General Review**  
LA Japanese  
AB A review with 15 refs. on the antitumor effects of vitamins, esp. carotenoids and lung cancer, vitamin C and gastric cancer, and acyclic retinoids and hepatoma.
- L53 ANSWER 164 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1999:244909 HCAPLUS  
DN 131:72998  
TI Effects of astaxanthin and vitamins on prevention of gastric ulceration of stressed rat  
AU Nishikawa, Yoshiyuki; Minenaka, Yoshiharu; Ichimura, Mika  
CS Coll. Nutr., Koshien Univ., Takarazuka, 665, Japan  
SO Koshien Daigaku Kiyo, A: Eiyogakubu-hen (1999), Volume Date 1998, 26, 45-52  
CODEN: KDKAEH; ISSN: 0913-5537  
PB Koshien Daigaku  
DT Journal  
LA Japanese  
AB Antioxidant vitamins, such as vitamin C and E and .beta.-carotene, may decrease the risk of cancer or cardiovascular disease. The carotenoid astaxanthin (Asx) is a red pigment found in fishes and Crustacea. It has stronger reducing activity than other carotenoids like .beta.-carotene. The physiol. and biochem. effects of Asx and vitamin C were studied in stressed rats. Asx extd. from Haematococcus or Phaffia or chem. synthesized were used in this expt. Rats given 400 mg astaxanthin or .beta.-carotene/kg feed grew well as with the normal dose (80 mg/kg feed) or control diet fed for 11 days. No differences were found among the 3 sources of Asx, except that blood serum activities of GPT and GGT and ulcer index showed slightly lower values with Haem-Asx. Rats fed Asx or vitamin C before stress had appreciably less gastric ulceration than control rats. The effects were more intense in rats fed Asx plus vitamin C than in rats given Asx or vitamin C alone. Thus, simultaneous dietary supplements of Asx and vitamin C may protect from stress.
- L53 ANSWER 165 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1999:740076 HCAPLUS  
DN 132:221828  
TI Vitamin E helps layers overcome stress  
AU Smith, Adam  
CS NuTec, Lichfield, UK  
SO Feed Mix (1999), 7(5), 16-17  
CODEN: FEMIF4; ISSN: 0928-124X  
PB Elsevier International Business Information  
DT Journal  
LA English

AB This article describes the impact of dietary vitamin E on the behavioral, biochem. and physiol. adaptations in poultry.

L53 ANSWER 166 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:66780 HCAPLUS

DN 130:295865

TI Antioxidant vitamins in the prevention of cancer

AU Lee, I-Min

CS Division of Preventive Medicine, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, 02215, USA

SO Proceedings of the Association of American Physicians (1999), 111(1), 10-15

CODEN: PAAPFD; ISSN: 1081-650X

PB Blackwell Science, Inc.

DT Journal; **General Review**

LA English

AB A review with 44 refs. Cancer is a leading cause of morbidity and mortality in the United States and other developed countries. In searching for preventive strategies against this disease, researchers have postulated that antioxidant vitamins may play a role in preventing cancer since several plausible biol. mechanisms exist. This article reviews the epidemiol. evidence for a role of antioxidant vitamins (in particular, beta-carotene, vitamin E, and vitamin C) in the development of cancer. Observational studies provide fairly consistent data for an inverse assocn. between high intake of antioxidant vitamins, esp. beta-carotene and vitamin C, and cancer risk. However, randomized trials generally have not supported the hypothesis. Several explanations for these inconsistent findings are possible. These include: 1) confounding by other healthy dietary and nondietary habits in observational studies; 2) the protective role of a combination of many different nutrients present in fruits and vegetables, rather than the single nutrient or combination of two nutrients that most trials have tested; 3) inadequate duration of follow-up in most randomized trials; and 4) heterogeneity of the populations studied. Reliable epidemiol. evidence regarding whether antioxidant vitamins play a role in preventing cancer will have to come from both observational studies and randomized trials since these different study designs each have unique strengths and limitations. Based on the available evidence, it seems prudent to advocate a diet rich in fruits and vegetables, rather than the consumption of specific antioxidant vitamin supplements, in order to decrease the risk of developing cancer.

RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 167 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:608534 HCAPLUS

DN 129:225723

TI The use of heme-peptides to prevent or retard disease associated with oxidative stress

IN Spector, Abraham; Ma, Wanchao; Wang, Ren-Rong

PA The Trustees of Columbia University in the City of New York, USA

SO PCT Int. Appl., 74 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 9837908 A1 19980903 WO 1998-US3857 19980227  
W: AU, CA, JP, MX, US  
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  
US 6013623 A 20000111 US 1997-807482 19970227  
AU 9864424 A1 19980918 AU 1998-64424 19980227  
PRAI US 1997-807482 19970227  
WO 1998-US3857 19980227

AB A method for treating a condition assocd. with oxidative stress in a subject comprises administering an effective amt. of a heme-peptide. The subject may be a mammal. The mammal may be a human being. The condition assocd. with oxidative stress may be an inflammatory condition, an allergic condition or an auto-immune condition.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 168 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:14818 HCAPLUS

DN 130:222487

TI Nitroblue tetrazolium reduction of neutrophils in heat stressed goats is not influenced by selenium and vitamin E injection

AU Katamoto, Hiromu; Fukuda, Hiroshi; Oshima, Izumi; Ishikawa, Naoto; Kanai, Yukio

CS Department of Veterinary Surgery, Osaka Prefecture University, Osaka, 599-8531, Japan

SO Journal of Veterinary Medical Science (1998), 60(11), 1243-1249  
CODEN: JVMSEQ; ISSN: 0916-7250

PB Japanese Society of Veterinary Science

DT Journal

LA English

AB An expt. was designed to det. whether heat stress suppresses neutrophil function and injections of selenium and vitamin E prior to heat stress prevent suppression of neutrophil function in goats. Twelve female goats were divided into 2 groups of 6 each and were kept at 25.degree.. Goats in the treatment group were injected i.m. with 0.1 mg/kg of Se and 2.72 IU/kg of vitamin E at 8 and 1 day prior to the initiation of heat stress. The other group was kept as control. All goats were exposed to hot environment at 38.degree.C from day 0 through 8. Decreased tendency in plasma cortisol concns. and temporary increase in plasma glucose concns. were shown in both groups. In the control group, plasma Se concn. gradually increased and .alpha.-tocopherol concn. decreased during the first 2 days. After the second injection with selenium and vitamin E, plasma selenium and .alpha.-tocopherol concns. significantly increased and remained higher than those in the control group. Whole blood glutathione peroxidase (GSH-Px) activity in the treatment group tended to be greater than that in the control group, but no significant difference was obsd. between the 2 groups. The nitroblue tetrazolium (NBT) redn. by activated neutrophils significantly decreased on day 6 in the control group but not in the treatment group. The NBT redn. by resting neutrophils significantly decreased in both groups. These data suggest that heat stress depresses neutrophil function, and selenium and vitamin E injection prior to heat stress has no apparent effect on neutrophil function during the stress.

RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 169 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:286384 HCAPLUS

DN 129:81063  
TI Influence of supplementation of practical diets with vitamin C on growth and response to hypoxic stress of seabream, *Sparus aurata*  
AU Henrique, M. M. F.; Gomes, E. F.; Gouillou-Coustans, M. F.; Oliva-Teles, A.; Davies, S. J.  
CS Instituto de Ciencias Biomedicas Abel Salazar, Laboratorio de Fisiologia Aplicada, Universidade do Porto, Oporto, 4050, Port.  
SO Aquaculture (1998), 161(1-4), 415-426  
CODEN: AQCLAL; ISSN: 0044-8486  
PB Elsevier Science B.V.  
DT Journal  
LA English  
AB Gilthead seabream were fed a fish meal based diet, supplemented with graded amts. of ascorbyl polyphosphate equiv. to 0, 25, 50, 100 and 200 mg of l-ascorbate (AA)/kg, for 12 wk. Although there were no significant differences between growth rates of each group, the feed gain ratio and voluntary feed intake were significantly lower, and the protein efficiency ratio was significantly higher for the fish fed 200 mg AA/kg, when compared with the group fed 0 mg AA/kg. An increase of the ascorbate concn. within the liver and spleen occurred with the increasing vitamin supplementation. After 12 wk, the fish were subjected to hypoxia for 24 h to det. the influence of AA supplementation on the physiol. response to this stressor. A significant hyperglycemia occurred in fish fed all the diets 3 h after the onset of stress, although a significantly higher resting plasma glucose was obsd. in fish fed the AA free diet. No significant difference was found in plasma cortisol concn. with stress, with the exception of fish fed the 100 mg of AA/kg diet, where a significantly lower cortisol level was found after 9 h of hypoxia. Fish fed the non-supplemented diet showed wider variation and a tendency to increase this variable, having significantly higher levels at 9 h and 24 h of stress than all the other groups and than fish fed the 200 mg AA/kg diet, resp. Stress had no detectable effect on liver AA concn. in all groups. However, spleen AA showed significantly increased levels between 3-6 h of hypoxic stress in fish fed 25 and 200 mg AA/kg diet and a further increase after 9 h in fish fed the 200 mg of AA/kg diet. These results suggest that the ascorbic acid requirements for seabream is less than 25 mg/kg diet based on a 12-wk growth study and that it requires about a four-fold increase in wt. before signs of deficiency can be obsd. Also, the fact that no variation in liver vitamin C concn. was be detected as a response to stress, suggests that this kind of stress does not significantly increase the utilization of this vitamin. However, a possible relation between dietary ascorbate and the physiol. response to hypoxia was found, since the fish receiving the non-supplemented diet showed increased plasma glucose and a tendency to have wider plasma cortisol variations than the fish fed the supplemented diets.  
RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 170 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1998:202826 HCAPLUS  
DN 128:255725  
TI Antioxidants and protection for carcinogenesis  
AU Yamanaka, Naoki  
CS Nagoya Meml. Hosp., Nagoya, 468, Japan  
SO Rinsho Eiyo (1998), 92(4), 392-396  
CODEN: RNEYAW; ISSN: 0485-1412  
PB Ishiyaku Shuppan

DT Journal; **General Review**

LA Japanese

AB A review with 17 refs., on prevention of carcinogenesis by antioxidative vitamins (vitamin E and C, and vitamin A including .beta.-carotene) and polyphenols including flavonoids.

L53 ANSWER 171 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:540228 HCAPLUS

DN 129:328770

TI The effect of dietary vitamin E on content of MDA and activity of (Na, K)-ATPase in RBC membrane of cold-stress rats

AU Wang, Feng; Dong, Zhaosheng; Chen, Yaomin; Zhang, Yinyu

CS Department of Troops Hygiene, 4th Military Medical University, Xi'an, 710032, Peop. Rep. China

SO Zhongguo Gonggong Weisheng Xuebao (1998), 17(2), 113-114

CODEN: ZGWXEQ; ISSN: 1001-0572

PB Zhongguo Gonggong Weisheng Zazhi Chubanshe

DT Journal

LA Chinese

AB The effect of dietary vitamin E on content of MDA and activity of (Na, K)-ATPase in RBC membrane of cold-stress rats were studied. The exptl. animals were fed on high and low vitamin E diet at 18.degree.C for 2 wk and then kept the cold exposed rats at 1.+-.1.degree.C for 24 h. Cold stress increased the RBC membrane MDA content and ATPase activity. High diet vitamin E decreased the cold stress induced MDA increase and enhanced the (Na,K)-ATPase increase; the MDA content and (Na,K)-ATPase were neg. correlated. The results suggest that dietary vitamin E inhibits lipid peroxidn., eradicates free radical, protects cell membrane and induces increase of (Na,K)-ATPase activity.

L53 ANSWER 172 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:452412 HCAPLUS

DN 129:216057

TI Effects of vitamins E and C on human breast cancer cell growth in the presence of various fatty acids

AU Kim, Gun-Hee; Cho, Il-Jin; Oh, Sun-Hee; Park, Hee-Sung; Cho, Sung-Hee

CS Dept. of Food Science and Nutrition, Catholic University of Taegu-Hyosung, Kyung-buk, 712-702, S. Korea

SO Journal of Food Science and Nutrition (1998), 3(1), 85-91

CODEN: JFSNFW; ISSN: 1226-332X

PB Korean Society of Food Science and Nutrition

DT Journal

LA English

AB To investigate the effects of antioxidative vitamins in combination with various fatty acids on breast cancer cell proliferation, MDA-MB231 human breast cancer cells were cultured for 3 days in the serum-free Iscove's modified Dulbecco's medium(IMDM) supplemented with 1.25mg/mL delipidized bovine serum albumin and 10.mu.g/mL insulin. Alpha-tocopherol, ascorbic acid or both vitamins were added to the medium at the concns. of 10 and 50.mu.M in the presence of 3.mu.g/mL of oleic(OA), linoleic(LA) .alpha.-linolenic(LNA) and docosaehaenoic acid(DHA). Cell growth was reduced significantly by .alpha.-tocopherol in a dose-dependent manner, but not affected by ascorbic acid. The four different fatty acids did not have significant effects on cell growth, although DHA exerted inhibitory effect on the growth after 1 day. However, each fatty acid was well incorporated into cellular lipid as such or as elongated forms. Addn. of .alpha.-tocopherol remarkably increased its cellular contents and reduced



cellular levels of thiobarbituric acid substances (TBARS) that were elevated notably in the presence of DHA in the culture media. But ascorbic acid addn. did not change much of either cellular .alpha.-tocopherol or TBARS contents. Northern blot hybridization showed that tumor suppressor gene p53 was most highly expressed by the combination of .alpha.-tocopherol and DHA in 8 h of cell culture. In conclusion, the growth inhibitory effect of vitamin E suggests that breast cancer cell proliferation is reduced by a mechanism other than cytotoxicity of lipid peroxide and it is related to expression of tumor suppressor gene p53, that can be increased by both vitamin E and n-3 fatty acid, DHA.

RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 173 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:401162 HCAPLUS

DN 129:108332

TI Vitamin E: mechanisms of action as tumor cell growth inhibitors

AU Kline, Kimberly; Yu, Weiping; Sanders, Bob G.

CS Division of Nutrition, The University of Texas at Austin, Austin, TX, 78712, USA

SO Cancer and Nutrition (1998), 37-53. Editor(s): Prasad, Kedar N.; Cole, William C. Publisher: IOS Press, Amsterdam, Neth.  
CODEN: 66HKAD

DT Conference; **General Review**

LA English

AB A review with 57 refs. Vitamin E and some of its derivs., notably the succinate ester of RRR-.alpha.-tocopherol, RRR-.alpha.-tocopheryl succinate (vitamin E succinate, VES), are being studied for potential use as anti-cancer agents. VES has been shown to inhibit the proliferation of several tumor cell types in vitro as well as in vivo. VES is noteworthy not only for its antiproliferative effects on tumor cells but also for its low toxicity toward normal cell types. Although the mechanisms of growth inhibition of tumor cells by VES are not yet fully understood, it is clear that VES possesses unique biol. properties independent of those of RRR-.alpha.-tocopherol (natural vitamin E) which is well known for its antioxidant properties. DNA synthesis arrest, induction of cellular differentiation, enhanced secretion and activation of potent epithelial cell growth inhibitors called transforming growth factor-betas (TGF-.beta.), and enhanced expression of cell surface proteins required for TGF-.beta. signalling, as well as induction of programmed cell death (apoptosis) have been obsd. in VES-treated tumor cells. These interesting biol. properties place VES among a select group of compds. that are being tested for both chemopreventive as well as chemotherapeutic actions; namely, monoterpenes (d-limonene and perillyl alc.), retinoids, and vitamin D analogs.

RE.CNT 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 174 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:384599 HCAPLUS

DN 129:94825

TI The effects of vitamin E on gastric ulcers and gastric mucosal barrier in stress induced rats

AU Guzel, Cihat; Kurt, Dogan; Sermet, Abdurrahman; Kanay, Zeki; Denli, Orhan; Canoruc, Fikri

CS Departments of Physiology, Faculty of medicine, Dicle University,

Diyarbakir, Turk.  
 SO Turkish Journal of Medical Sciences (1998), 28(1), 19-21  
 CODEN: TJMEEA; ISSN: 1300-0144  
 PB Scientific and Technical Research Council of Turkey  
 DT Journal  
 LA English  
 AB Effects of vitamin E on gastric ulcers gastric mucosal barrier were investigated in cold + restraint stress (CRS) induced rats. In this study 21 males two month old Swiss Albino Rats were used. Stress treated rats significantly decreased mucus and phospholipid content of gastric mucosa ( $p < 0.01$ ,  $P < 0.01$ ). Vitamin E was administered orally in the dose of 100 mg/kg body wt. thirty min. before stress. Vitamin E reduced significantly gastric ulceration ( $p < 0.01$ ). Moreover, it significantly protected mucus secretion and phospholipid content of gastric mucosa in rats ( $p < 0.01$ ,  $p < 0.01$ , resp.). These results indicate that extrinsic application of vitamin E may strengthen gastric mucosal barrier in rats.  
 RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 175 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1998:1380 HCAPLUS  
 DN 128:70767  
 TI Genistein as a preventive against ultraviolet induced skin photodamage and cancer  
 IN Wei, Huachen  
 PA Mt. Sinai School of Medicine, University of New York, USA  
 SO PCT Int. Appl., 16 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9746208	A2	19971211	WO 1997-US11963	19970609
	WO 9746208	A3	19980219		
	W: AU, CA, GB, IL, JP				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5824702	A	19981020	US 1996-657915	19960607
	AU 9737225	A1	19980105	AU 1997-37225	19970609
	AU 716131	B2	20000217		
	EP 918504	A2	19990602	EP 1997-934083	19970609
	EP 918504	B1	20030319		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2000511907	T2	20000912	JP 1998-500949	19970609
	AT 234599	E	20030415	AT 1997-934083	19970609
	ES 2188963	T3	20030701	ES 1997-934083	19970609
PRAI	US 1996-657915	A	19960607		
	WO 1997-US11963	W	19970609		
AB	A method of inhibiting the harmful effect of UV radiation exposure to the human skin comprising topically applying a therapeutically effective amt. of genistein (I) to the skin at a time sufficiently close to the time of UV radiation exposure to inhibit UV radiation-induced damage to the skin. The genistein appears to act as a chemo preventative agent since it has no appreciable sun blocking effect. The genistein may be mixed with a variety of carriers and skin treatment compns. A human subject was topically treated with a 5 .mu.mol soln. of I/cm2 of skin then, exposed to				

0-90mJ/cm2 UVB. The skin was completely protected against akin erythema while the controls showed UVB dos-dependent induction of skin erythema.

L53 ANSWER 176 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:340721 HCAPLUS

DN 127:39870

TI Pharmaceutical compositions for cancer prevention

IN Kawashima, Zenichi

PA Kawashima, Takaaki, Japan; Kato, Shigeru

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09077674	A2	19970325	JP 1996-6433	19960118
PRAI	JP 1995-171862		19950707		
AB	Pharmaceutical compns. [e.g. tablets] for cancer prevention comprise dried yeasts and .gtoreq.1 substances selected from vitamin C, vitamin E, DHA, .beta.-carotene, catalase and ginkgo exts. with/without bacteria enzymes.				

L53 ANSWER 177 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:800888 HCAPLUS

DN 132:15614

TI Anticancer compositions

IN Wen, Bin

PA Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 5 pp.

CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1156588	A	19970813	CN 1996-115669	19960205
PRAI	CN 1996-115669		19960205		
AB	Anticancer compns. [tablets, capsules] comprise tinidazole 0.5-2.0, vitamin E 1.0-0.3, vitamin A 0.01-0.03, and vitamin C 0.3-0.8 parts. The medicine may also contain astemizole 0.005-0.015 and metoclopramide 0.005-0.03 parts.				

L53 ANSWER 178 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:302933 HCAPLUS

DN 126:276782

TI Antistress agents for aquatic animals

IN Kuerzinger, Hubert

PA Tetra Werke Dr. Rer. Nat. Ulrich Baensch Gmbh, Germany; Kuerzinger, Hubert

SO PCT Int. Appl., 17 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9708960	A1	19970313	WO 1996-EP3689	19960822
	W: AL, AM, AU, AZ, BY, CA, CN, CZ, EE, GE, HU, IL, JP, KG, KP, KR,				

KZ, LK, LT, LV, MD, MN, NZ, RU, SG, SI, SK, TJ, TM, UA, US, UZ,  
 VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  
 CA 2231244 AA 19970313 CA 1996-2231244 19960822  
 AU 9669269 A1 19970327 AU 1996-69269 19960822  
 AU 718898 B2 20000420  
 EP 848592 A1 19980624 EP 1996-930072 19960822  
 EP 848592 B1 20001102  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI  
 JP 11514973 T2 19991221 JP 1996-510811 19960822  
 AT 197225 E 20001115 AT 1996-930072 19960822  
 ES 2152039 T3 20010116 ES 1996-930072 19960822  
 PT 848592 T 20010330 PT 1996-96930072 19960822  
 US 6306453 B1 20011023 US 1998-29388 19980608  
 GR 3035228 T3 20010430 GR 2001-400044 20010111  
 PRAI DE 1995-19532682 A 19950905  
 WO 1996-EP3689 W 19960822

AB The invention pertains to antistress agents to improve the resistance of aquatic animals, in particular fish, shrimp and invertebrates in fresh water and salt water, to stresses of all kinds; these can also be used as antistress agents for warm- and cold-water aquarium fish and contain a vitamin or a combination of vitamins in megadoses and one or more immunostimulants.

L53 ANSWER 179 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:589969 HCAPLUS

DN 127:247440

TI Effects of supplemental ascorbic acid on the energy conversion of broiler chicks during heat stress and feed withdrawal

AU McKee, J. S.; Harrison, P. C.; Riskowski, G. L.

CS Department of Animal Sciences and Agricultural Engineering, University of Illinois at Urbana-Champaign, Urbana, IL, 61801, USA

SO Poultry Science (1997), 76(9), 1278-1286

CODEN: POSCAL; ISSN: 0032-5791

PB Poultry Science Association, Inc.

DT Journal

LA English

AB The objectives of this study were 1) to det. the effects of supplemental ascorbic acid (AA) on the energy conversion of broiler chicks maintained at thermoneutral and potential heat stress temps. using indirect convective calorimetry; and 2) to det. whether changes in energy conversion are reflected in changes in lipid metab. In Expt. 1, 120 2-d-old cockerels, housed in two identical environmental chambers, were maintained under const. light (2.0  $\pm$  0.2 fc) and recommended thermal conditions (29.6  $\pm$  0.8.degree.C; 33.4  $\pm$  8.0% RH) and consumed water and feed ad libitum. Beginning on Day 8 posthatch, one-half of the birds inside each chamber were randomly assigned and received feed supplemented with AA. Beginning on Day 9 posthatch, the temp. inside one chamber was increased to 34.degree.C whereas the other chamber remained thermoneutral. This design resulted in four treatments: 1) thermoneutral (TN: 27.7  $\pm$  0.8 C; 40.9  $\pm$  9.4% RH) and 0 mg AA/kg feed (ppm); 2) TN and 150 ppm AA; 3) heat stress (H: 33.8  $\pm$  0.5 C; 43.3  $\pm$  7.4% RH) and 0 ppm AA; or 4) H and 150 ppm AA. Also beginning on Day 9 posthatch, birds were randomly assigned to one of three identical, indirect convective calorimeters designed to accommodate TN or H. Oxygen consumption, carbon dioxide prodn., RQ, and heat prodn. were evaluated daily for 8 h, through Day 17

posthatch. Following calorimetric measurement, birds were returned to their resp. caging unit/chamber for the remainder of the study. Wt. gain, feed intake, and gain:feed were also measured over the 9-d study. Heat exposure depressed ( $P < 0.05$ ) wt. gain, feed intake, and gain:feed. Ascorbic acid increased ( $P < 0.10$ ) wt. gain. Oxygen consumption and carbon dioxide and heat prodn. per kg<sup>0.75</sup> decreased ( $P < 0.05$ ) with age with no change in the RQ. Heat exposure lowered ( $P < 0.001$ ) the RQ. A temp. by AA interaction was detected in which heat-exposed birds expressed lower ( $P < 0.10$ ) RQs when consuming the AA-supplemented diet. In Expt. 2, 18 2-d-old cockerels, housed in an environmental chamber, were maintained under const. light and recommended thermal conditions (29.3  $\pm$  0.4.degree.C; 41.4  $\pm$  3.3% RH) and consumed water and feed ad libitum. On Day 9 posthatch, birds were deprived of feed for 24 h with ad libitum access to water supplemented with either 0 or 400 mg AA/L. Blood samples were obtained from each bird before and after feed withdrawal and supplementation. Supplemented birds exhibited elevated ( $P < 0.01$ ) plasma AA, levels that were not affected by feed deprivation. Feed deprivation increased ( $P < 0.0001$ ) plasma .beta.-hydroxybutyrate with no effect of AA, and decreased ( $P < 0.05$ ) plasma triglycerides in the unsupplemented birds. A feed withdrawal by AA interaction was detected in which plasma triglycerides remained elevated in birds supplemented with AA. These data suggest that supplemental AA influences body energy stores that are used for energy purposes during periods of reduced energy intake.

L53 ANSWER 180 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:658143 HCAPLUS

DN 127:306860

TI Effect of vitamin C and .beta.-carotene administration on physical and psychological response to stress infliction, especially in relation to banana intake

AU Shioiri, Terue; Iijima, Yumiko; Inaba, Yumi; Oshima, Yukiko; Soeno, Naoko; Inomata, Michiko; Saito, Reiko; Kimoto, Kouichi; Tomabechi, Konosuke; Mita, Reizo; Ikegami, Sachie; Kobayashi, Shuhei

CS Tokyo Kasei Univ., Tokyo, 173, Japan

SO Eiyogaku Zasshi (1997), 55(4), 179-187

CODEN: EYGZAD; ISSN: 0021-5147

PB Kokumin Eiyo Shinkokai

DT Journal

LA Japanese

AB We conducted an expt. on 14 healthy female students to observe influences of stress infliction upon subjective symptoms and urinary catecholamine excretion. We divided subjects into 4 groups; [1] basic diet, [2] basic diet with 150 g of banana, [3] basic diet, 150 of banana and 30 mg of .beta.-carotene, [4] basic diet, 150 g of banana and 500 mg of ascorbic acid. The exptl. period was 6 days. Stresses were inflicted by 6 consecutive hours per day of calcn. of math. problems on the 5th and 6th days. Intake of banana caused increments of urinary dopamine and noradrenaline excretion with significant differences from the basic diet group. The amt. of urinary adrenaline excretion was not influenced by banana intake while the amt. was increased by stress infliction in every group. The no. of stress-induced subjective symptoms further increased in students with banana intake, but the increase was not obsd. when vitamin C or .beta.-carotene was administered to the subjects prior to stress infliction.

L53 ANSWER 181 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:191259 HCAPLUS

DN 126:271894  
TI Dose-related preventive and therapeutic effects of antioxidants-  
anticarcinogens on experimentally induced malignant tumors in Wistar rats  
AU Evangelou, A.; Kalpouzos, G.; Karkabounas, S.; Liasko, R.; Nonni, A.;  
Stefanou, D.; Kallistratos, G.  
CS Laboratory of Experimental Physiology, Faculty of Medicine, University of  
Ioannina, GR-45110, Ioannina, Greece  
SO Cancer Letters (Shannon, Ireland) (1997), 115(1), 105-111  
CODEN: CALEDQ; ISSN: 0304-3835  
PB Elsevier  
DT Journal  
LA English  
AB A combination of antioxidants-anticarcinogens, consisting of vitamins C  
and E, selenium and 2-mercaptopropionyl glycine (2-MPG), was administered  
orally for the prevention (PRG) and treatment (TRG) of benzo(a)pyrene  
(BaP)-induced malignant tumors (leiomyosarcomas), in Wistar rats. In  
order to evaluate dose-related effects, a low dose vitamin (0.15 g/kg b.w.  
per day of vit.C and 0.05 g/kg b.w. per day of vit.E) and a high dose (1.5  
g/kg b.w. per day of vit.C and 0.5 g/kg b.w. per day of vit.E) combination  
was administered, in prevention and treatment groups. Selenium was  
administered in doses of 2 .mu.g/kg b.w. per day and 2-MPG in 15 mg/kg  
b.w. per day, in all groups. Daily estns. of 24 h urine vol. levels of  
thiobarbituric acid reacting substances (MDA) were performed in 20  
animals, divided into a control group, a BaP-injected group, a  
tricapryline-injected group and a BaP-injected and treated by the low dose  
combination group. Results revealed that the low dose combination failed  
to exert any beneficial effect on mean survival time of animals treated  
either preventatively or therapeutically. An increased no. of animals  
bearing a second (lung) tumor was, in addn., found in autopsy and histol.  
examn. in the low dose combination (PRG and TRG) and the high dose TRG  
groups. The high dose combination groups manifested a significant  
prolongation of the mean survival time of animals; complete remission of  
tumors developed in 16.8% of the animals in the treatment group and a 5.2%  
prevention of tumor formation in the preventive group, without any  
evidence of an increased no. of double tumor formation in the PRG group.  
Urine MDA increased significantly in animals injected by BaP during the  
first 10 days and since the 90th day (formation of palpable tumors) after  
injection, in relation to control and tricapryline-injected groups.  
Complete prevention of urine MDA-increased values was obtained in  
BaP-injected and treated by the low dose combination animals. Results  
indicate that high doses (megadoses) of the antioxidant-anticarcinogen  
vitamins C and E in combination with carefully selected other antioxidants  
possessing supplementary actions, are probably needed in order to achieve  
a sufficient prevention and treatment of malignant diseases.

L53 ANSWER 182 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1997:292815 HCAPLUS  
DN 126:311832  
TI Chemoprevention of colorectal tumors: role of lactulose and of other  
agents  
AU De Leon, M. Ponz; Roncucci, L.  
CS Dept. of Internal Medicine, University of Modena, Modena, Italy  
SO Scandinavian Journal of Gastroenterology, Supplement (1997), 32(222),  
72-75  
CODEN: SJGSB8; ISSN: 0085-5928  
PB Scandinavian University Press  
DT Journal

LA English

AB A controlled study was carried out in which antioxidant vitamins or lactulose were used in an attempt to prevent the recurrence of colorectal polyps after their endoscopic removal. Among the 209 patients evaluated, polyps recurred in 5.7% of the individuals who were given vitamins (A, C and E), in 14.7% of the patients given lactulose and in 35.9% of untreated controls. The study suggested that either antioxidant vitamins or lactulose could be effective in reducing the recurrence rate of adenomatous polyps. In a subsequent, on-going study, lower doses of the same vitamins were tested vs. N-acetylcysteine (600 mg/day) or no treatment. Preliminary results showed a 40% redn. of the recurrence of polyps (vs. controls) in individuals given N-acetylcysteine, while the effect of lower doses of the vitamins was less appreciable.

RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 183 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:233746 HCAPLUS

DN 126:324783

TI Development of lipophilic derivatives of vitamin C. Skin-protecting and lightening effects and antitumor and metastasis-inhibitory effects

AU Murata, Tomoji; Kowata, Yasunori; Miwa, Nobuhiko

CS Cosmos, Nihon Surfactant Kogyo K. K., Tokyo, 174, Japan

SO Fragrance Journal (1997), 25(3), 71-79

CODEN: FUJAD7; ISSN: 0288-9803

PB Fureguransu Janaru Sha

DT Journal; **General Review**

LA Japanese

AB A review with 13 refs. 2,3,5,6-O-Tetra-2-hexyldecanoyl-L-ascorbic acid (VC-IP) is colorless clear liq., almost sol. in oily materials and thermally stable without deterioration in color. Esp., VC-IP is absorbed in human skin and can be used as skin lightening agent, besides it has SOD-like activity. Therefore, a new type of application for cosmetics has been derived from VC-IP with desired properties. Lipophilic derivs. of L-ascorbic acid monoacylated at the 6-OH site with palmitoyl or stearyl group were endowed with the potentiated antitumor activity, which is attributable to generation of a diversity of reactive oxygen intermediates, enhancement of extracellular release of cell membrane-derived lipids and post-transcriptional inhibition of ornithine decarboxylase. 6-O-Palmitolylascorbate at doses as low as inducing no inhibition of cell growth inhibited tumor metastasis to the lung and tumor invasion through reconstituted basement membrane.

L53 ANSWER 184 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:423489 HCAPLUS

DN 129:183703

TI Multiple mechanisms of cancer prevention by phytochemicals: interaction between cellular proliferation and endogenous mutagens

AU Cooney, Robert V.; Mordan, Lawrence J.; Franke, Adrian

CS Cancer Research Center of Hawaii, University of Hawaii, Honolulu, HI, 96813, USA

SO Food Factors for Cancer Prevention, [International Conference on Food Factors: Chemistry and Cancer Prevention], Hamamatsu, Japan, Dec., 1995 (1997), Meeting Date 1995, 26-29. Editor(s): Ohigashi, Hajime. Publisher: Springer, Tokyo, Japan.

CODEN: 66HYAL

DT Conference; **General Review**

LA English

AB A review with 32 refs. The development of a neoplastic cell involves multiple genetic changes in various key genes, including tumor suppressor genes, oncogenes, or DNA repair genes. Increasingly, it is recognized that these genetic changes may be the result of mutations caused through the synergistic interaction between cellular proliferation and the endogenous generation of oxidative radicals, including nitrogen oxides and oxidative radicals, including nitrogen oxides and various oxygen radicals. Numerous phytochemicals, such as the tocopherols, carotenoids, flavonoids, monoterpenes, and ascorbate, among others, have been shown to prevent or delay the development of tumor cells in cell culture and in animal models, while epidemiol. evidence suggests that increased consumption of fruits and vegetables and their associated phytochemicals is correlated with decreased cancer incidence. In vitro cell transformation models offer unique insights into not only the mechanisms of action for various dietary phytochemicals, but the process of carcinogenesis itself.

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L53 ANSWER 185 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:233745 HCAPLUS

DN 126:311645

TI Functions of vitamin C in the cell. Enriching of intracellular ascorbate and the resultant diverse biological effects

AU Yamane, Takashi; Nagao, Norio; Miwa, Nobuhiko

CS Sch. Biosci., Hiroshima Prefect. Univ., Shobara, 727, Japan

SO Fragrance Journal (1997), 25(3), 7-19

CODEN: FUJAD7; ISSN: 0288-9803

PB Fureguransu Janaru Sha

DT Journal; **General Review**

LA Japanese

AB A review with 21 refs. Ascorbic acid-2-O-phosphate (Asc2P) was shown to be taken up into human skin keratinocyte or fibroblastic cells more efficiently than Asc-2-O-.alpha.-glucoside. Asc2P also markedly inhibited tumor metastasis and tumor invasion through reconstituted basement membrane via enriching of intracellular Asc after undergoing dephosphorylation. Invasion of tax gene-transfected fibroblastic cells was more markedly inhibited by Asc2P than that of the parent cells, suggesting attribution to efficient scavenging of endogenous reactive oxygen intermediates (ROI) by Asc2P. Post-ischemic reperfusional injuries of the liver or heart were also inhibited by Asc2P assuredly through scavenging of ROI generated at the initial stage. Thus Asc2P was superior to Asc or the other derivs. in terms of intracellular uptake, inhibition of tumor metastasis and prevention of post-ischemic perfusion injury.

L53 ANSWER 186 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:109734 HCAPLUS

DN 130:129966

TI Anticancer composition

IN Yang, Xuqing; Yin, Yingwu; Tang, Yueling; Zhang, Baochang; Yang, Zhenyun; Wang, Xiyao

PA Beijing Xingda Science System Co., Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 19 pp.

CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1



	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1121832	A	19960508	CN 1994-103448	19940408
	CN 1056082	B	20000906		
PRAI	CN 1994-103448		19940408		
OS	MARPAT 130:129966				
AB	A anticancer compn. comprises e.g. antagonist (4-tert-butyl-2,6-dimethylnitrobenzene) 20-60, GSH 1-5, sodium selenite 2-10, platinum or ferric complex of amino acids or peptides 0.1-0.5%, vitamin C or vitamin E, pollen and adjuvants. The compn. showed high and broad-spectrum effectiveness and was nontoxic.				

L53 ANSWER 187 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:438017 HCAPLUS

DN 125:85490

TI Fodder and drinking water additive for improving the resistance to stress and immunity of useful animals

IN Erber, Erich

PA Ing. Erich Erber Kommanditgesellschaft, Austria

SO PCT Int. Appl., 18 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9615682	A1	19960530	WO 1995-AT224	19951121
	W: AU, BR, CA, CN, CZ, HU, JP, KR, MX, PL, RU, SG, SI, SK, VN				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	IL 115918	A1	19991231	IL 1995-115918	19951108
	ZA 9509716	A	19960529	ZA 1995-9716	19951115
	CA 2181365	AA	19960530	CA 1995-2181365	19951121
	AU 9538352	A1	19960617	AU 1995-38352	19951121
	EP 740509	A1	19961106	EP 1995-936377	19951121
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	CN 1138821	A	19961225	CN 1995-191289	19951121
	HU 76362	A2	19970828	HU 1996-1974	19951121
	BR 9506556	A	19971028	BR 1995-6556	19951121
	CZ 285631	B6	19991013	CZ 1996-1974	19951121
	JP 11514205	T2	19991207	JP 1995-516376	19951121
PRAI	AT 1994-443	U	19941122		
	WO 1995-AT224	W	19951121		

AB The invention concerns a fodder and drinking water additive for improving the resistance to stress and immunity of useful animals. The additive comprises lysozyme and/or the pharmaceutically harmless salts thereof as the principal component and a peroxidase-contg. substance, in particular horseradish peroxidase. Vitamin E or another vitamin and lactoferrin or plant exts. may also be included in the compn.

L53 ANSWER 188 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:748583 HCAPLUS

DN 126:30589

TI Glutathione and antioxidant in food for controlling mental stress

IN Nakano, Takahisa; Kobayashi, Akio

PA Riken Vitamin Co, Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08275752	A2	19961022	JP 1995-108245	19950407
PRAI	JP 1995-108245		19950407		

AB A food contg. glutathione and .gtoreq. 1 antioxidants is found effective in decreasing mental stress. For example, a food contg. glutathione 5-100, vitamin C 10-2000, vitamin E 5-100, and .beta.-carotene 1-5 mg was given daily to adult, and its efficacy studied.

L53 ANSWER 189 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:432259 HCAPLUS

DN 125:141264

TI Effect of vitamin E and selenium on hypothermic restraint stress and chemically-induced ulcers

AU Al-Moutairy, Ahmad R.; Tariq, Mohammad

CS Dammam and Riyadh Military Hospital, King Faisal University, Riyadh, Saudi Arabia

SO Digestive Diseases and Sciences (1996), 41(6), 1165-1171  
CODEN: DDSCDJ; ISSN: 0163-2116

PB Plenum

DT Journal

LA English

AB The present study was undertaken to det. the effect of a combination of selenium and vitamin E on stress and chem.-induced gastric ulcers in rats. The gastric mucosal lesions were produced by hypothermic restraint stress, indomethacin, reserpine, and mucosal damaging agents including 80% ethanol, 0.6 M HCl, 25% NaCl, and 0.2 M NaOH. The gastric secretion studies were undertaken using Shay's pylorus ligation model. The results of this study demonstrated that the treatment of rats with selenium or vitamin E significantly reduced the basal gastric acid secretions when given individually; however, the combination of these agents produced a better inhibition of gastric acid secretions as compared to their individual effect. Both selenium and vitamin E were found to protect gastric mucosa against the lesions produced by hypothermic restraint stress and chems., but a highly significant protection was obsd. when they were used concomitantly. Vitamin E alone and with selenium significantly inhibited ethanol-induced depletion of gastric nonprotein sulfhydryl compds. Our findings also showed that the combination of selenium and vitamin E provided better protection to gastric mucosa against hypothermic restraint-induced gastric wall mucus depletion. This study clearly suggests the feasibility of using selenium and vitamin E concurrently to achieve better gastroprotective effects.

L53 ANSWER 190 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:298651 HCAPLUS

DN 126:304155

TI Biological consequences of hypoxic stress on working dogs.

Licancabur-Chiens des cimes. Chile april 1996 scientific expedition

AU Grandjean, D.; Driss, F.; Sergheraert, R.; Valette, J. P.; Michel, A.; Luigi, R.

CS Unite Medecine l'Elevage Sport Ecole Nationale Veterinaire d'Alfort, Brigade Sapeurs Pompiers Paris, Maisons-Alfort, F-94704, Fr.

SO Recueil de Medecine Veterinaire (1996), 172(11/12), 601-621  
CODEN: RMVEAG; ISSN: 0034-1843

PB Association pour la Publication du Recueil de Medecine Veterinaire  
DT Journal  
LA French  
AB Scientific literature provides numerous informations concerning the biol. effects of altitude hypoxia in Humans, but none in dogs. The aim of the present study was to consider search and rescue dogs working at an altitude of more than 5 000 m, without any acclimatation period, as a model for cellular hypoxic stress. All racing dogs, and esp. sled dogs, are facing a high level of metabolic stress, including cellular hypoxia related to vasoconstriction problems and/or lack of oxygen transportation to deep muscle cells. The .mchlt.Licancabur-Chiens des cimes.mchgt. expedition was organized in Apr. 1996 in Chile ; the main reason for this choice is that the volcano Licancabur (Atacama desert, north of Chile) culminates at 5 980 m in altitude and can be reached, for its lower part (4 600 m) in less than 24 h after leaving France. This allowed the expedition to be in high altitude without any acclimatation time, enhancing the biol. effects of acute of acute altitude hypoxia. Members of the expedition were: -5 search and rescue teams from the Paris Fire Department (military unit); -5 search and rescue teams from the Carabineros de Chile (military unit); -1 MD, 1 Vet (authors) and 2 dog behavior specialist from La Sorbonne University Paris; -12 other people in charge of the practical organization, including specialized guides. To study the effects of nutrition on the hypoxic stress related modifications, the dogs were divided into the group: -5 dogs received a std. dry food, non premium maintenance type; -5 dogs received a high stress diet basically designed for racing sled dogs, a premium 35/25 dry food, supplemented with vitamins E and C, and with omega 3 fatty acids. Observations and blood samples have been realized at the following levels of altitude: -sea level; -2 300 m (San Pedro de Atacama); -4 500 m (base camp); -5 750 m (max. altitude reached). At each level of altitude the dogs have been working by having to search 2 victims in local Inca ruins, before being sampled. Blood sampled have been immediately centrifuged and frozen, except for the quantities necessary to on site analyses. Back to Paris, the following parameters have been analyzed: -membrane resistance to lipoperoxydation in tertibutylperoxyde; -blood free fatty acids; -blood alkanes; -blood vitamins E and C; -plasma cortisol; -plasma antioxidant trace elements. The results of the present protocol clearly demonstrate the interest of an antioxydant supplementation in such hypoxic conditions. They also show that stamina in acute hypoxia is a good spontaneous model for cellular oxidative stress, also involved in elderness process, in some cardiovascular pathologies, in tumors proliferation and in... sport physiol. On a practical point of view we were also able to better understand and prevent in the future the consequences of acute mountain sickness in working dogs. Following the first expedition will be other ones already scheduled and starting in 1998, on top of the Aconcagua in Argentina.

L53 ANSWER 191 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1996:564895 HCAPLUS  
DN 125:246261  
TI Vitamin C and common cold incidence: A review of studies with subjects under heavy physical stress  
AU Hemila, H.  
CS Department Public Health, University Helsinki, Finland  
SO International Journal of Sports Medicine (1996), 17(5), 379-383  
CODEN: IJSMDA; ISSN: 0172-4622  
PB Thieme

DT Journal  
LA English  
AB Several studies have obsd. an increased risk of respiratory infections in subjects doing heavy phys. exercise. Vitamin C has been shown to affect some parts of the immune system, and accordingly it seems biol. conceivable that it could have effects on the increased incidence of respiratory infections caused by heavy phys. stress. In this report the results of three placebo-controlled studies that have examd. the effect of vitamin C supplementation on common cold incidence in subjects under acute phys. stress are analyzed. In one study the subjects were school-children at a skiing camp in the Swiss Alps, in another they were military troops training in Northern Canada, and in the third they were participants in a 90 km running race. In each of the three studies a considerable redn. in common cold incidence in the group supplemented with vitamin C (0.6-1.0 g/day) was found. The pooled rate ratio (RR) of common cold infections in the studies was 0.50 (95% CI: 0.35-0.69) in favor of vitamin C groups. Accordingly, the results of the three studies suggest that vitamin C supplementation may be beneficial for some of the subjects doing heavy exercise who have problems with frequent upper respiratory infections.

L53 ANSWER 192 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1996:138687 HCAPLUS  
DN 124:259309  
TI Vitamin E and cancer prevention  
AU Liang, Bailin; Wang, James Y.; Watson, Ronald R.  
CS AHSC, Tucson, AZ, USA  
SO Nutrition and Cancer Prevention (1996), 283-97. Editor(s): Watson, Ronald Ross; Mufti, Siraj I. Publisher: CRC, Boca Raton, Fla.  
CODEN: 62KRAL

DT Conference; **General Review**  
LA English  
AB A review with 93 refs. on vitamin E antioxidant and immunoenhancing therapeutic roles in animal and human cancer.

L53 ANSWER 193 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1996:138685 HCAPLUS  
DN 124:259307  
TI Tumor prevention by vitamin c in animals  
AU Liehr, Joachim G.; Winter, Mark L.  
CS Department Pharmacology and Toxicology, University Texas Medical Branch, Galveston, TX, USA  
SO Nutrition and Cancer Prevention (1996), 239-56. Editor(s): Watson, Ronald Ross; Mufti, Siraj I. Publisher: CRC, Boca Raton, Fla.  
CODEN: 62KRAL

DT Conference; **General Review**  
LA English  
AB A review with 98 refs. on ascorbic acid's beneficial and adverse effects in vivo and in vitro in relation to its influence on tumor induction and cell transformation and mutagenesis.

L53 ANSWER 194 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1996:233895 HCAPLUS  
DN 124:315579  
TI Vitamin E and stress  
AU Hirahara, Fumiko  
CS Div. Food Sci., Natl. Inst. Health Nutrition Res., Japan  
SO Rinsho Kensa (1996), 40(2), 218-19

CODEN: RNKNAT; ISSN: 0485-1420

PB Igaku Shoin  
DT Journal; General Review  
LA Japanese  
AB A review with 7 refs. on the physiol. activities of vitamin E in coping stresses. The physiol. activities of vitamin E comprises antioxidative activity, free radical-removing activity, prevention of carcinogenesis, and stimulation of immunoactivity.

L53 ANSWER 195 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1996:138684 HCAPLUS  
DN 124:259306  
TI Vitamin C and cancer prevention: An assessment of analytic studies in humans  
AU Rogers, Mary A. M.; Thomas, David B.  
CS Health Science Center, State University New York, Syracuse, NY, USA  
SO Nutrition and Cancer Prevention (1996), 205-37. Editor(s): Watson, Ronald Ross; Mufti, Siraj I. Publisher: CRC, Boca Raton, Fla.  
CODEN: 62KRAL  
DT Conference; **General Review**  
LA English  
AB A review with 156 refs. on ascorbic acid's role in cancer prevention.

L53 ANSWER 196 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1996:720515 HCAPLUS  
DN 126:7025  
TI Chemoprevention trial on precancerous lesions of the stomach in Venezuela: Summary of study design and baseline data  
AU Munoz, N.; Vivas, J.; Buiatti, E.; Kato, I.; Oliver, W.  
CS Unit Field Intervention Studies, International Agency Res. Cancer, Lyon, Fr.  
SO IARC Scientific Publications (1996), 139(Principles of Chemoprevention), 125-133  
CODEN: IARCCD; ISSN: 0300-5038  
PB International Agency for Research on Cancer  
DT Journal  
LA English  
AB A double-blind, placebo-controlled trial is being conducted in a population at high risk for gastric cancer in Venezuela. The main aim of the trial is to assess the effect of antioxidant vitamins (.beta.-carotene, vitamin C, and vitamin E) in blocking the progression of precancerous lesions of the stomach. Within the framework of a screening program for stomach cancer, 2200 subjects of 35-69 yr of age have been recruited. At study entry, a dietary questionnaire was completed, and gastroscopy with the collection of 7 gastric biopsies was performed. After baseline exams., the study participants were randomized to receive antioxidant treatment or placebo for 3 yr. The treatment phase will be completed in mid-1998. At the end of the treatment phase, the investigations performed at study entry will be repeated. Before the initiation of the trial, various pilot studies were carried out that showed an extremely high prevalence of Helicobacter pylori infection (>90%). Two eradication trials using anti-H. pylori treatments that give good results in Europe and North America gave very poor results in this study population. The low eradication rates achieved (5-20%) suggest a high prevalence of antibiotic-resistant H. pylori strains or high reinfection rates. These disappointing results led to deletion of an anti-H. pylori treatment phase of the main trial.

- L53 ANSWER 197 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1997:656630 HCAPLUS  
DN 127:314706  
TI Effect of relanium and of feeding with vitamins C and B6 on certain physiological and biochemical indexes of calves  
AU Aituganov, M. D.; Von Korokhova, V.; Ysmanbaeva, A.; Zakirov, D.  
CS IBF, NAN KR, Kyrgyzstan  
SO Ekho Nauki (1996), (1), 70-73  
CODEN: EKNAFG  
PB Ilim  
DT Journal  
LA Russian  
AB Relanium is shown to be an effective prophylactic against transport stress and sunstroke in calves. Feed supplementation with vitamins C and B6 help prevent loss of body mass.
- L53 ANSWER 198 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1996:760256 HCAPLUS  
DN 126:30781  
TI Antioxidants improve cattle immunity following stress  
AU Nockels, Cheryl F.  
CS Dept. of Animal Sciences, Colorado State Univ., Fort Collins, CO, 80523, USA  
SO Animal Feed Science and Technology (1996), 62(1), 59-68  
CODEN: AFSTDH; ISSN: 0377-8401  
PB Elsevier  
DT Journal  
LA English  
AB Free radical and nonfree radical oxidants can produce damaging effects in animal tissues if antioxidants are deficient. These oxidants are produced during metab. and may be substantially increased by aerobic exercise, stress, tissue injury, infection, and detoxification of many compds. Stress may precede an infectious episode in animals by decreasing antioxidants needed later by an active immune response. Antioxidant nutrients such as vitamin E, .beta.-carotene and the trace elements selenium, copper, zinc and manganese in enzymes are very important in protecting an animal's tissues from oxidative destruction. This protective benefit also results in an improved immune response which decreases mastitis in dairy cows and infectious disease incidences arising in stressed cattle following shipping. The amt. of nutrients needed for immunoenhancement is higher than the suggested required amt. by NRC.
- L53 ANSWER 199 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1996:311817 HCAPLUS  
DN 125:26037  
TI The influence of various vitamin on physiologic and psychologic response to stress  
AU Shioiri, Terue; Iijama, Yumiko; Saitou, Reiko; Mita, Reizou; Inaba, Yumi; Ooshima, Yukiko; Tomabechi, Kounosuke  
CS Tokyo Kasei Univ., Japan  
SO Kenkyu Kiyo - Tokyo Kasei Daigaku, 2: Shizen Kagaku (1996), 36(2), 59-65  
CODEN: KKSKEZ; ISSN: 0385-1214  
PB Tokyo Kasei Daigaku  
DT Journal  
LA Japanese  
AB The influence of various vitamin on physiolog. and psychol. response to

stress was studied in college female students. The results indicated that vitamin supplements esp. .beta.-carotene and vitamin C are helpful for coping with stress.

L53 ANSWER 200 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:524789 HCAPLUS

DN 127:175785

TI Differential effect of .alpha.-tocopherol and ascorbate on oxidative injury induced in immune cells by thermal stress

AU Franci, O.; Ranfi, F.; Scaccini, C.; Amici, A.; Merendino, N.; Tommasi, G.; Piccolella, E.

CS Centro Interuniversitario di Immunodiagnostica Sperimentale, Italy

SO Journal of Biological Regulators and Homeostatic Agents (1996), 10(2/3), 54-59

CODEN: JBRAER; ISSN: 0393-974X

PB Wichtig

DT Journal

LA English

AB As immune cells are often subjected to hyperthermia that can easily occur either after intense and/or prolonged exercise or during defense against pathogens, in this paper we analyzed whether superoxide anion prodn. occurred in lymphocytes exposed to high temp. and, consequently, if antioxidants could exert any protective function. An increase of superoxide anion was induced in rabbit lymphocytes exposed to 42.degree.C for 1h, although cell viability was not affected. However, suppression of either Pokeweed mitogen (PWM)-driven cell proliferation, or Ig prodn. or IL-2 synthesis was obsd. To evaluate the capacity of antioxidants to restore the immune suppressed responses, two vitamins, .alpha.-tocopherol and ascorbic acid, were added to PWM-stimulated cultures following heat treatment. The data demonstrated that .alpha.-tocopherol was able to totally abrogate the inhibitory effects mediated by thermal stress, while ascorbic acid did not give any protective results.

L53 ANSWER 201 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:234393 HCAPLUS

DN 126:249440

TI Stress effect on lipid peroxidation and physico-chemical state of membranes of endoplasmic reticulum of the liver of adult and old rats

AU Paramonova, G. I.; Gubskii, Yu. I.; Goryushko, A.G.; Levitskii, E. L.; Primak, R. G.

CS Inst. Gerontol., AMN Ukrainy, Kiev, Ukraine

SO Ukrainskii Biokhimicheskii Zhurnal (1996), 68(5), 47-53

CODEN: UBZHD4; ISSN: 0201-8470

PB Naukova Dumka

DT Journal

LA Russian

AB As a result of expts. carried out on adult (6-8 mo) and old (24-26 mo) male rats of the Wistar line it is established that emotional-pain stress results (in one day) in essential increase in the activity of spontaneous, NADPH - and ascorbate-dependent peroxidn. of lipids in the liver microsomes, which is expressed in the old animals rather than in the adult ones. The induced peroxidn. of lipid six days after the stress effect remains activated in the adult rats and decreases to the control level in the old ones. Accumulation of lipid peroxidn. products in the membrane structure of hepatocytes is accompanied by the changes of physicochem. parameters of microsomal membranes, microviscosity and surface potential in particular. Availability of conformational shifts of membrane proteins

of microsomes under the conditions of activation of lipid peroxidn. evoked by the stress is accompanied by changes of physico-chem. parameters of microsomal membranes. Changes in the membrane structure are expressed to the less extent in the microsomes of old rats liver as well, that evidences for the age-dependent differences of adaptational capacities of the organism.

L53 ANSWER 202 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:408047 HCAPLUS

DN 125:85302

TI Effects of dietary copper, chromium, and vitamin e on measures of stress and immune competence in growing cattle

AU Arthington, John David

CS Kansas State Univ., Manhattan, KS, USA

SO (1995) 135 pp. Avail.: Univ. Microfilms Int., Order No. DA9614249

From: Diss. Abstr. Int., B 1996, 57(1), 6

DT Dissertation

LA English

AB Unavailable

L53 ANSWER 203 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:155612 HCAPLUS

DN 124:194302

TI Treatment of proliferative disorders, metastases, and drug resistant tumors with vanadate compounds and derivatives or analogs thereof

IN Cruz, Tony

PA Mount Sinai Hospital Corp., Can.

SO Can. Pat. Appl., 46 pp.

CODEN: CPXXEB

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CA 2113683	AA	19950719	CA 1994-2113683	19940118
PRAI	CA 1994-2113683		19940118		

AB Vanadate compds. or derivs. or analogs are useful as antiproliferative and anti-metastatic agents, and/or for the treatment of drug resistant tumors in animals. Mice were injected s.c. with  $1 \times 10^5$  MDAY-D2 cell in day 1, and on day 5 small tumors could be obsd. at the site of the injection. Mice were then injected daily with 50. $\mu$ L of 10mg/m orthovanadate (I). On day 14, the mice were sacrificed and the tumors were removed and weighed. Animals treated with I had tumors which were either undetectable or considerably smaller than controls.

L53 ANSWER 204 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:69186 HCAPLUS

DN 124:144355

TI Evidence from cancer intervention and biomarker studies and the development of biochemical markers

AU Bowen, Phyllis E.; Mobarhan, Sohrab

CS Department Human Nutrition and Dietetics, University Illinois, Chicago, IL, 60612, USA

SO American Journal of Clinical Nutrition (1995), 62(6, Suppl.), 1403S-9S

CODEN: AJCNAC; ISSN: 0002-9165

PB American Society for Clinical Nutrition

DT Journal; **General Review**



- LA English  
AB A review with 54 refs. regarding evidence from intervention trials with vitamins E and C and .beta.-carotene as well as evidence from trials that have used intermediate endpoints with a special emphasis on biomarkers of cancer of the colorectum.
- L53 ANSWER 205 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1996:69184 HCAPLUS  
DN 124:144353  
TI Epidemiologic evidence for vitamin C and vitamin E in cancer prevention  
AU Byers, Tim; Guerrero, Nicole  
CS National Center Chronic Disease, Centers Disease Control and Prevention, Atlanta, USA  
SO American Journal of Clinical Nutrition (1995), 62(6, Suppl.), 1385S-92S  
CODEN: AJCNAC; ISSN: 0002-9165  
PB American Society for Clinical Nutrition  
DT Journal; **General Review**  
LA English  
AB A review with 113 refs. on epidemiol. evidence regarding the question of specificity of effects of vitamin C and vitamin E for cancer prevention.
- L53 ANSWER 206 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1995:514507 HCAPLUS  
DN 122:264212  
TI The effects of heat distress environment, vitamin, and trace mineral supplementation on performance, blood constituents, and tissue mineral concentrations in broiler chickens  
AU Deyhim, Farzad; Stoecker, Barbara S.; Adeleye, Bernece G.; Teeter, Robert G.  
CS Department of Animal Science, Oklahoma State University, Stillwater, OK, 74078, USA  
SO Nutrition Research (New York, NY, United States) (1995), 15(4), 521-6  
CODEN: NTRSDC; ISSN: 0271-5317  
DT Journal  
LA English  
AB An investigation was carried out to det. the effects of heat distress environment and dietary vitamin and/or trace mineral supplementation on broilers from 28 to 49 days of age. Variables monitored included prodn. criteria, serum metabolites, and gastrocnemius muscle and spleen Na, Ca, Mg, Fe, and Zn concns. Heat distress reduced wt. gain, feed efficiency, serum total protein, albumin, triglyceride, uric acid, and it did not affect muscle and spleen trace mineral concns., but it increased serum glucose concn. Broiler wt. gain and feed efficiency decreased with trace mineral supplementation only. While, wt. gain and feed efficiency numerically increased with vitamin supplementation only, and significantly increased with vitamin plus trace mineral supplementation. Serum total protein and albumin decreased with trace mineral and/or vitamin supplementation. Other variables were not affected with the dietary treatments. In conclusion, optimal broiler growth rate and feed efficiency depends on certain trace mineral by vitamin interactions.
- L53 ANSWER 207 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1995:844627 HCAPLUS  
DN 123:284326  
TI Inhibition and regression of experimental oral cancer by beta carotene and vitamin E: Emerging concepts  
AU Shklar, Gerald

- CS Harvard School Dental Medicine, Boston, MA, 02115, USA  
SO Nutrients in Cancer Prevention and Treatment (1995), 317-32. Editor(s): Prasad, Kedar N.; Santamaria, Leonida; Williams, R. Michael. Publisher: Humana, Totowa, N. J.  
CODEN: 61SWAZ
- DT Conference; **General Review**  
LA English  
AB A review with 60 refs. on cancer prevention in relation to dietary .beta.-carotene and vitamin E.
- L53 ANSWER 208 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1995:844624 HCAPLUS  
DN 123:284325  
TI Beta-carotene and antioxidant nutrients in oral cancer prevention  
AU Garewal, Harinder  
CS VA Medical Center, University Arizona, Tucson, AZ, 85723, USA  
SO Nutrients in Cancer Prevention and Treatment (1995), 235-47. Editor(s): Prasad, Kedar N.; Santamaria, Leonida; Williams, R. Michael. Publisher: Humana, Totowa, N. J.  
CODEN: 61SWAZ
- DT Conference; **General Review**  
LA English  
AB A review with 36 refs. on .beta.-carotene and vitamin E nutrition in relation to oral cancer prevention.
- L53 ANSWER 209 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1995:594037 HCAPLUS  
DN 123:54732  
TI Influence of .beta.-carotene and vitamin C on physiologic and psychologic responses to stress  
AU Iijima, Yumiko; Soeno, Naoko; Inomata, Michiko; Shiori, Terue; Saitou, Reiko; Kimoto, Kouichi; Tomabechei, Kounosuke; Mita, Reizou; Inoue, Kikuko; et al.  
CS Tokyo Kasei Univ., Tokyo, 173, Japan  
SO Eiyogaku Zasshi (1995), 53(2), 93-102  
CODEN: EYGZAD; ISSN: 0021-5147  
PB Kokumin Eiyo Shinkokai  
DT Journal  
LA Japanese  
AB We investigated the influence of the dietary factors, vitamin C and .beta.-carotene in green/yellow vegetables, on psychol. responses to stress. Stress comprising calcn. of math problems for 6 consecutive hours/day was applied on the 5th and 6th days resp. The 3 groups were provided with the same diet during the first 6 days (the first stage), but the diet was supplemented with 30 mg of .beta.-carotene for group .beta., 300 mg of ascorbic acid for group C and placebo of safflower oil for group P during the last six days (the last stage). In the first stage, the no. of subjective symptoms increased with loading of stressors when the calcn. tasks was done. In the last stage, the subjective symptoms increased in group P similarly, but in groups .beta. and C, the symptoms reduced, esp. in group .beta.. The plasma concn. of .beta.-carotene decreased in the first stage in all the groups. In the last stage, the .beta.-carotene concn. also decreased except in group .beta. whose diet was supplemented with .beta.-carotene. The plasma concn. and urinary excretion of vitamin C did not change in the first stage when they had 100 mg of vitamin C in the diet (calcd. value), but in the last stage, both concns. in group C notably increased with the intake. Urinary noradrenaline and adrenaline

excretions increased in the first stage and both concns. temporarily decreased before loading next stressors in the last stage, but significantly increased with loading of the stressors. Group .beta. showed a remarkable increase compared to other groups.

L53 ANSWER 210 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:949490 HCAPLUS

DN 124:85491

TI Induction of NAD(P)H:quinone reductase by vitamins A, E and C in Colo205 colon cancer cells

AU Wang, Weiqun; Higuchi, Carl M.

CS Prevention and Control Program, Cancer Research Center of Hawaii, University of Hawaii, 1236 Lauhala Street, Honolulu, HI 96813, USA

SO Cancer Letters (Shannon, Ireland) (1995), 98(1), 63-9  
CODEN: CALEDQ; ISSN: 0304-3835

PB Elsevier

DT Journal

LA English

AB High consumption of fruits and vegetables which are abundant in dietary antioxidants has been linked to a reduced incidence of colorectal cancer. A potential mechanism of dietary anticarcinogenesis involves the induction of detoxifying phase II enzymes, including NAD(P)H:quinone reductase (QR) and glutathione-S-transferase (GST). This study therefore examd. the ability of the dietary antioxidant vitamins .beta.-carotene, .alpha.-tocopherol and ascorbic acid to induce cellular expression of QR and GST activities in human colon cancer cells. Colo205 cells were cultured in the presence or absence of various concns. (10<sup>-10</sup> to 10<sup>-5</sup> M) of each antioxidative micronutrient, then assessed for cytosolic QR and GST activities and cell growth. .beta.-Carotene, .alpha.-tocopherol and ascorbic acid each resulted in dose-dependent increases in QR activity, without adverse effects upon cell proliferation. To investigate whether the ability of .beta.-carotene to induce QR may be attributable to its conversion to vitamin A and/or to its antioxidant capacity as a carotenoid, retinol, retinoic acid, and lycopene were similarly tested for their capacity for enzyme induction. Although retinol and retinoic acid were both noted to be antiproliferative at higher concns. (10<sup>-6</sup> to 10<sup>-5</sup> M), both retinoids stimulated QR at physiol. concns. Lycopene, a carotenoid which is not converted to vitamin A, was devoid of biol. activity. By contrast with the effects upon QR, GST activity was unaffected by treatment with any of the micronutrients tested in this in vitro model. The results support a hypothesis that a high dietary consumption of vitamins A, E and C may confer partial protection against colorectal cancer by the induction of specific detoxifying enzymes. The antioxidant capacity of .beta.-carotene appears to have less biol. impact vis-a-vis QR induction than its function as a non-toxic reservoir of vitamin A. Measurements of QR activity within the colorectal mucosa may provide an index of cancer susceptibility, and may be an appropriate surrogate endpoint biomarker for colorectal cancer prevention studies involving diet modification or specific relevant micronutrients.

L53 ANSWER 211 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:204910 HCAPLUS

DN 124:256250

TI Corticosterone level in blood of meat turkeys after application of vitamin E and selenium before the pre-slaughter handling

AU Sowinska, Janina; Filus, Kazimierz; Gierczynski, Slawomir; Wojcik, Anna  
CS Dep. Zoological Hygiene, Univ. Agric. Technol., Olsztyn, Pol.

SO Acta Academiae Agriculturae ac Technicae Olstenensis: Zootechnica (1995),  
503(44), 55-60  
CODEN: AATZE6; ISSN: 0860-2603  
PB Wydawnictwo ART  
DT Journal  
LA Polish  
AB Vitamin E and Se were used to lessen the pre-slaughter stress in meat  
turkeys. Administration of L-tocopherol and Na<sub>2</sub>SeO<sub>4</sub> resulted in decrease  
of corticosterone level in the birds. The corticosterone level was detd.  
by the radiocompetitive methods.

L53 ANSWER 212 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:692722 HCAPLUS

DN 124:13

TI Antioxidants and cancer

AU Stoll, Guenther

CS Filderstadt, D-70794, Germany

SO Deutsche Apotheker Zeitung (1995), 135(24), 35-8, 40

CODEN: DAZE2; ISSN: 0011-9857

PB Deutscher Apotheker Verlag

DT Journal; **General Review**

LA German

AB A review, with 7 refs. on the role of vitamins as antioxidants in disease  
prevention and the new knowledge on their influence, esp. vitamin C and E  
in cancer prevention by regulating genetic expression. The antioxidative  
mechanism of vitamins against free radicals is also described.

L53 ANSWER 213 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:288224 HCAPLUS

DN 122:54907

TI Effectiveness of short-term cooling and vitamin E for alleviation of  
infertility induced by heat stress in dairy cows

AU Ealy, Alan D.; Arechiga, Carlos F.; Bray, David R.; Risco, Carlos A.;  
Hansen, Peter J.

CS Dep. Dairy Poultry Sci., Univ. Florida, Gainesville, FL, 32611, USA

SO Journal of Dairy Science (1994), 77(12), 3601-7

CODEN: JDSCAE; ISSN: 0022-0302

PB American Dairy Science Association

DT Journal

LA English

AB Four expts. were performed to det. whether cooling cows during final  
maturation of oocytes and early embryonic development or injection of  
vitamin E at artificial insemination prevented adverse effects of heat  
stress on pregnancy rates in lactating Holstein dairy cows. In expt. 1,  
cows were placed in a cooling facility contg. sprinklers and forced  
ventilation or received shade only from 2-3 days before until 5-6 days  
after breeding. Although cooling had no effect on detection of estrus,  
pregnancy rates were increased slightly for cooled cows (8 of 50 cows;  
16.0%) compared with those for cows exposed to shade only (2 of 32 cows;  
6.2%). In expts. 2 through 4, cows were administered 3000 IU of vitamin E  
or placebo i.m. at artificial insemination during 2 consecutive summers  
and 1 winter in Florida. Administration of vitamin E had no consistent  
beneficial effect on pregnancy rates during summer or winter. Short-term  
cooling improved pregnancy rates slightly in heat-stressed cows, but  
administration of vitamin E had no beneficial effects on pregnancy rates  
during heat stress. Further improvements in cooling schemes during early  
pregnancy and delineation of antioxidant effects are necessary before such

systems become practical for improvement of fertility in heat-stressed dairy cows.

- L53 ANSWER 214 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1995:370562 HCAPLUS  
DN 122:159300  
TI Newer aspects of micronutrients in chronic disease: Vitamin E  
AU Morrissey, P. A.; Quinn, P. B.; Sheehy, P. J. A.  
CS Department Nutrition, University College, Cork, Ire.  
SO Proceedings of the Nutrition Society (1994), 53(3), 591-82  
CODEN: PNUSA4; ISSN: 0029-6651  
DT Journal; **General Review**  
LA English  
AB A review with 53 refs. on the chem. and esp. antioxidant activity of vitamin E and its involvement as a protective agent for membranes and against cancer, cardiovascular disease, and other disorders.
- L53 ANSWER 215 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1995:333575 HCAPLUS  
DN 122:233441  
TI Vitamin C - structure, chemical reactivity and biological activity  
AU Eckert-Makisic, M.; Maksic, Z. B.; Osmak, M.; Pavelic, K.  
CS Dept. Chem., Rudjer Boskovic Inst., Zagreb, Croatia  
SO Kemija u Industriji (1994), 43(12), 461-73  
CODEN: KJUIAR; ISSN: 0022-9830  
PB Hrvatsko Drustvo Kemijskih Inzenjera i Tehnologa  
DT Journal; **General Review**  
LA Serbo-Croatian  
AB A review, with 87 refs., of the structure, stability, electronic properties, chem. and biol. activities of vitamin C (L-ascorbic acid, AA). Theor. methods employed in elucidating structural and electronic features encompass semiempirical MINDO/3, MNDO and AM1 schemes, as well as some most recent ab initio procedures. Theor., predicted structures of the most stable AA tautomer and radical AA- are in accordance with empirical knowledge. It appears also that AA- is thermodynamically more stable than the parent mol. AA. Partitioning of the total mol. energy shows that enhanced thermodyn. stability of AA- is to be ascribed to increased bond energies of two addnl. C=O groups. However, AA- is more reactive at the same time because of the presence of the unpaired electron and the high orbital energy of SOMO. Maxima of the unpaired spin d. are found on oxygen atoms of the carbonyl-groups attached to the ring. It has been found that the side chain has a very little influence on geometry of the ring and its chem. properties. Biol. activity of ascorbic acid is discussed in some detail. Its role in collagen synthesis, strengthening of the immune system and in prevention of numerous diseases is reviewed. It appears that vitamin C has a pronounced antioxidant activity which is synergistically enhanced by the presence of vitamin E. Hence, it quenches a no. of harmful free-radicals thus ameliorating the oxidative stress taking place in various diseases and slowing down the aging process. It also provides considerable protection against some cardiovascular illnesses, which is enhanced in conjunction with vitamin E. Finally, we discuss results of several expts. carried out in vivo and in vitro at the Rudjer Boskovic Institute designed in order to elucidate inhibitory action of AA and its derivs. on the proliferative capacity of some malignant cell lines. For this purpose we introduced a new concept of the modified orthomol., 6-bromo-6-deoxy-, 6-chloro-6-deoxy and 6-amino-6-deoxy being pseudo-orthomols. par excellence. It has been shown that these AA derivs.

exhibit a pronounced anticancer activity for some malignant neoplasia. The best results are obtained in vitro for the human cell lines: cervix cancer (HeLa), laryngeal cancer (Hep2), breast cancer (SKBR3) and pancreatic cancer (MIA-Pa-Ca-2). The no. of malignant cells of the latter tumor is dramatically decreased by appropriate treatment with 6-amino-6-deoxy-ascorbic acid. It has been established that the mechanism of action of the latter compd. is apoptosis, i.e. the programmed cell death. Our results are encouraging and illustrate rather nicely that the idea of the modified orthomol. opens up a new avenue in cancer research.

L53 ANSWER 216 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:472784 HCAPLUS

DN 122:264160

TI Vitamin E and cancer prevention

AU Knekt, Paul

CS Research and Development Centre, Social Insurance Institution, Helsinki, 00380, Finland

SO Nat. Antioxid. Hum. Health Dis. (1994), 199-238. Editor(s): Frei, Balz. Publisher: Academic, San Diego, Calif.

CODEN: 60TYA7

DT Conference; **General Review**

LA English

AB A review with 201 refs. on the anticancer effects of vitamin E.

L53 ANSWER 217 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1994:699801 HCAPLUS

DN 121:299801

TI Effect of vitamin E injection on cortisol and white blood cell response to surgical stress in dairy cows

AU Mudron, P.; Scholz, H.; Sallmann, H. P.; Rehage, J.; Kovac, G.; Bartko, F.; Hoeltershinken, M.

CS Clinic of Internal Med., Veterinary Univ., Kosice, 08141, Slovakia

SO International Journal for Vitamin and Nutrition Research (1994), 64(3), 176-80

CODEN: IJVNAP; ISSN: 0300-9831

DT Journal

LA English

AB Abdominal surgery (omentopexy) was carried out in order to correct a left abomasal displacement in 20 dairy cows. Ten hours prior to surgery 10 cows were injected i.m. with 10 mg dl-.alpha.-tocopheryl acetate per kg body wt. Ten cows (controls) received an equiv. vol. of injectable water. Over a 72 h period plasma samples were collected. In 8 cows (4 cows from each group) .alpha.-tocopherol in liver tissue was detd. Plasma vitamin E concns. were significantly higher in vitamin E injected cows than in controls in all of the samples after the vitamin E injections. Similarly, liver .alpha.-tocopherol concns. were significantly higher in vitamin E injected cows than in controls. The surgical stress led to profoundly increased plasma cortisol levels and leucocytosis due to neutrophilia within 5 h after the surgery. Plasma cortisol levels as well as leukocyte counts were not affected by route of vitamin E administration used.

L53 ANSWER 218 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:341939 HCAPLUS

DN 122:131785

TI Performance and humoral immune response in heat-stressed broilers fed an ascorbic acid supplemented diet

AU Tuekam, T.D.; Miles, R.D.; Butcher, G.D.

CS Institute of Food and Agricultural Sciences, University of Florida,  
Gainesville, FL, 32611-0930, USA  
SO Journal of Applied Animal Research (1994), 6(2), 121-30  
CODEN: JANREH; ISSN: 0971-2119  
DT Journal  
LA English  
AB A six-week expt. was conducted to investigate the influence of  
supplemental dietary ascorbic acid (AA) on body wt., feed consumption,  
feed conversion and the humoral immune response of broilers exposed to  
heat stress and inoculated with an inactivated vaccine strain of avian  
infectious bronchitis virus (IBV). The four treatment groups consisted of  
a control group under no heat stress and receiving no AA supplementation  
and three groups consisting of birds maintained at 32C and fed a diet  
supplemented with 0,500 or 1000 ppm AA. Ascorbic acid supplementation in  
heat-stressed groups did not improve the body wt. compared with the  
heat-stressed, unsupplemented birds. Feed consumption was improved for  
the heat-stressed birds receiving 1000 ppm AA compared with heat-  
stressed, but no AA supplementation. At the concn. of 1000 ppm AA, feed  
conversion was not significantly different from that obsd. for the control  
birds. As the concn. of AA supplementation increased, the relative wt. of  
the bursa of Fabricius also increased. During heat stress, birds  
supplemented with 500 ppm AA developed increased IBV antibody titers. The  
serum corticosterone concn. was lowered in these birds. There was a pos.  
correlation ( $r^2=.95$ ) between antibody titers and AA concn. and a neg.  
correlation ( $r^2=.54$ ) between the serum corticosterone concn. and the  
antibody titers.

L53 ANSWER 219 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1994:400005 HCAPLUS  
DN 121:5  
TI Vitamin E and cancer prevention, human evidence  
AU Knekt, Paul  
CS Res. Inst. Soc. Secur., Soc. Insurance Inst., Helsinki, SF-00381, Finland  
SO Vitam. E (1993), 345-56. Editor(s): Mino, Makoto. Publisher: Jpn. Sci.  
Soc. Press, Tokyo, Japan.  
CODEN: 59SHAZ  
DT Conference; **General Review**  
LA English  
AB A review with 60 refs.

L53 ANSWER 220 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1993:538132 HCAPLUS  
DN 119:138132  
TI Human data on vitamin E and cancer  
AU Knekt, Paul  
CS Res. Inst. Soc. Secur., Soc. Insur. Inst., Helsinki, SF-00381, Finland  
SO Pennington Center Nutrition Series (1993), 3(Vitamins and Cancer  
Prevention), 270-87  
CODEN: PCNSEW; ISSN: 1063-8822  
DT Journal; **General Review**  
LA English  
AB A review with 75 refs. on human studies indicating the ability of vitamin  
E to protect against various types of cancer.

L53 ANSWER 221 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1994:629513 HCAPLUS  
DN 121:229513

TI Effect of ascorbic acid supplementation on blood composition of chickens exposed to heat stress  
AU Sahota, Abdul Waheed; Gilani, Abrar Hussain; Fahim-Ullah, Muhammad  
CS Poultry Res. Inst., Rawalpindi, Pak.  
SO Pakistan Journal of Science (1993), 45, 21-30  
CODEN: PAJSAS; ISSN: 0030-9877  
DT Journal  
LA English  
AB Lyallpur Silver Black and White Leghorn chicks and laying pullets subjected to heat stress (30.degree. for 2 wk and then 39.degree. for 6 wk) showed reduced blood glucose and citric acid and serum cholesterol levels when supplemented with 50 or 100 mg ascorbic acid/kg feed, as compared with unsupplemented controls.

L53 ANSWER 222 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1993:49 HCAPLUS  
DN 118:49  
TI Vitamin E and cancer prevention: recent advances and future potentials  
AU Prasad, Kedar N.; Edwards-Prasad, Judith  
CS Sch. Med., Univ. Colorado, Denver, CO, 80262, USA  
SO Journal of the American College of Nutrition (1992), 11(5), 487-500  
CODEN: JONUDL; ISSN: 0731-5724  
DT Journal; **General Review**  
LA English  
AB A review with 116 refs.

L53 ANSWER 223 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1989:93802 HCAPLUS  
DN 110:93802  
TI Anticarcinogenic effects of ascorbic acid, tocopherol, and retinol.  
AU Wartanowicz, Maria; Potrzebicka, Krystyna  
CS Zak. Fizjol. Biochem. Zywienia, Inst. Zyw. Zywienia, Warsaw, Pol.  
SO Wiadomosci Lekarskie (1988), 41(8), 507-13  
CODEN: WILEAR; ISSN: 0043-5147  
DT Journal; **General Review**  
LA Polish  
AB A review with 36 refs. on neoplasm-inhibiting effects of ascorbic acid, tocopherol and retinol.

L53 ANSWER 224 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1986:441599 HCAPLUS  
DN 105:41599  
TI Role of vitamins E and C in the development of malignant processes  
AU Morozkina, T. S.  
CS State Med. Inst., Minsk, 220798, USSR  
SO Eksperimental'naya Onkologiya (1986), 8(3), 3-10  
CODEN: EKSODD; ISSN: 0204-3564  
DT Journal; **General Review**  
LA Russian  
AB A review with 82 refs. on the levels of vitamin E [1406-18-4] and vitamin C [50-81-7] in **tumor** tissues, the role of these vitamins in **neoplasm** inhibition, and clin. use of vitamins E and C in **cancer** therapy.

L53 ANSWER 225 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1985:77613 HCAPLUS  
DN 102:77613



- TI Ascorbic acid, stress resistance and reproduction in swine  
AU Dvorak, M.  
CS Vet. Res. Inst., Brno, Czech.  
SO Ascorbic Acid Domest. Anim., Proc. Workshop, 1st (1984), Meeting Date  
1983, 80-6. Editor(s): Wegger, Inger; Tagwerker, F. J.; Moustgaard,  
Johannes. Publisher: R. Dan. Agric. Soc., Copenhagen, Den.  
CODEN: 53BLAM  
DT Conference  
LA English  
AB The ascorbic acid (AA) [50-81-7] status in swine during  
development was assessed by detn. of AA concn. in their blood serum,  
urine, adrenal, liver, male genital glands, and boar semen. The high  
levels found in piglets suggest very good satn. with AA, but apparently  
also higher AA requirements as compared to older pigs. Piglets with  
sideropenic anemia had depressed AA levels in the liver and urine. The  
adrenal showed developmental changes in AA concn. only during the  
perinatal period and a temporary AA depletion upon ACTH response to  
**stress**. Enhanced adrenocortical activity had no adverse effects  
on AA level of either the blood or the liver. Increased requirements for  
AA can be expected to occur under its insufficient endogenous synthesis in  
**stress** assocd. with reduced food intake. The relatively high AA  
concn. found in boar semen shows a relation to sperm concn. and is a  
result of the activity of the testis, but is also influenced by accessory  
gland secretions.
- L53 ANSWER 226 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1984:453707 HCAPLUS  
DN 101:53707  
TI Stress and vitamins. 11. Vitamin B2, C  
AU Saijo, Eiichi  
CS Bayer Japan Ltd., Japan  
SO Niwatori no Kenkyu (1984), 59(3), 33-6  
CODEN: NNKEDT; ISSN: 0029-0785  
DT Journal; General Review  
LA Japanese  
AB A review with 3 refs. discussing mol. structure, characteristics, physiol.  
activities, and metab. of vitamin B2 [83-88-5] and vitamin C [50-81-7].
- L53 ANSWER 227 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1984:509329 HCAPLUS  
DN 101:109329  
TI Stress and vitamins. 13. Vitamins K and C  
AU Saijo, Eiichi  
CS Bayer Japan Ltd., Japan  
SO Niwatori no Kenkyu (1984), 59(5), 31-3  
CODEN: NNKEDT; ISSN: 0029-0785  
DT Journal; General Review  
LA Japanese  
AB A review with 6 refs. discussing characteristics, metab., and physiol.  
activities of vitamin K [12001-79-5] and effects of vitamin K and vitamin  
C [50-81-7] on chickens under **stresses** by high temp.  
and coccidiosis.
- L53 ANSWER 228 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1983:574561 HCAPLUS  
DN 99:174561  
TI Stress and vitamins. 4. Vitamin E

- AU Saijo, Eiichi  
CS Nippon Roche K. K., Tokyo, Japan  
SO Niwatori no Kenkyu (1983), 58(8), 59-62  
CODEN: NNKEDT; ISSN: 0029-0785  
DT Journal; General Review  
LA Japanese  
AB A review with 24 refs., discussing characteristics, physiol. activity, deficiency symptoms, and clin. tests of vitamin E [1406-18-4].
- L53 ANSWER 229 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1983:70733 HCAPLUS  
DN 98:70733  
TI Dietary ascorbic acid or procaine penicillin and the response of the immature fowl to stressors  
AU Freeman, B. M.; Manning, A. C. C.; Flack, I. H.  
CS Houghton Poultry Res. Stn., Houghton/Huntingdon/Cambs., PE17 2DA, UK  
SO Comparative Biochemistry and Physiology, Part A: Molecular & Integrative Physiology (1983), 74A(1), 51-6  
CODEN: CBPAB5; ISSN: 0300-9629  
DT Journal  
LA English  
AB The effectiveness of dietary ascorbic acid [50-81-7] (1 g/kg) and procaine penicillin [6130-64-9] (25 g active base/kg feed) in ameliorating the response of chicks to the **stressors** glucagon [9007-92-5], corticotropin [9002-60-2], withdrawal of food and water, and extremes of environmental temp. (4.degree. and 35.degree.) both short and long-term, has been assessed. No consistent changes in the responses were found, but it is suggested that the rates of inclusion of the substances in the diet, and, subsequently, the amt. of substance taken up by adrenal cortical cells may be important.
- L53 ANSWER 230 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1983:196737 HCAPLUS  
DN 98:196737  
TI Effect of ascorbic acid on experimental carcinogenesis  
AU Khar'kovskaya, N. A.; Khrustalev, S. A.  
CS All-Union Cancer Res. Cent., Moscow, USSR  
SO Eksperimental'naya Onkologiya (1983), 5(2), 3-8  
CODEN: EKSODD; ISSN: 0204-3564  
DT Journal; **General Review**  
LA Russian  
AB A review with 76 refs. on the **antitumor** activity of ascorbic acid (I) [50-81-7].
- L53 ANSWER 231 OF 231 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1973:404095 HCAPLUS  
DN 79:4095  
TI Recommended daily allowances for vitamin C  
AU Yew, Man-Li S.  
CS Clayton Found. Biochem. Inst., Univ. Texas, Austin, TX, USA  
SO Proceedings of the National Academy of Sciences of the United States of America (1973), 70(4), 969-72  
CODEN: PNASA6; ISSN: 0027-8424  
DT Journal  
LA English  
AB Young healthy guinea pigs were fed a scorbutic diet supplemented with ascorbic acid at 4 widely different levels (0.05, 0.5, 5.0, and 50 mg/100

g of body wt/day). Growth rates both before and after surgical stress, recovery times after anesthesia, scab formation, wound healing, and the prodn. of hydroxyproline and hdyroxylysine during wound healing all supported the conclusion that young guinea pigs ordinarily need .apprx.5.0 mg/100 g of body wt. daily. This is far beyond what is needed to prevent scurvy. Under stress the needs are even higher. On a body-wt. basis this amt. is equiv. to a need on the part of a 30-kg human child of 1500 mg of ascorbic acid daily. While calcns. on a body-wt. basis are subject to some uncertainty, the enormous discrepancy (nearly 40-fold) between this amt. and that recommended by the Food and Nutrition Board calls attention to the extreme uncertainty about human ascorbic-acid needs, and to an important public health problem related to the best development of young people.